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TRANSPORTATION SCIENCES CENTER
ACCIDENT RESEARCH GROUP

Calspan SRL Corporation
Buffalo, New York 14225

CALSPAN ON-SITE AIR BAG/ARM FRACTURE CRASH INVESTIGATION

CALSPAN CASE NO. 94-42

VEHICLE #1 - 1991 DODGE SPIRIT

VEHICLE #2 - 1985 FORD TEMPO GL

LOCATION - NEW YORK

CRASH DATE - [redacted] 1994

Contract No. DTNH22-94-D-07058

Prepared for:

U.S. Department of Transportation
National Highway Traffic Safety Administration
Washington, D.C. 20590

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points are coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

TECHNICAL REPORT STANDARD TITLE PAGE

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15. *Supplementary Notes* On-site investigation of a crash between a 1991 Dodge Spirit and a 1985 Ford Tempo GL in which the driver of the air bag equipped 1991 Dodge suffered a fracture of the left forearm.			

16. *Abstract*

An on-site investigation was conducted into a two vehicle crash which occurred in [redacted]1994 during daylight hours in the State of New York. The weather at the time of the crash was overcast. The crash occurred at the junction of a driveway and a two lane, asphalt, undivided straight section of roadway which was wet from earlier precipitation.

A 1991 Dodge Spirit (Vehicle #1) equipped with a driver side air bag was exiting the driveway of a gas station in a southerly direction and attempted to make a left turn onto the east/west roadway. A 1985 Ford Tempo GL (Vehicle #2) traveling westbound struck the left front fender of Vehicle #1 at a CRASH3 estimated impact speed of 25.0 km/h (15.0 mph). Vehicle #1 rotated in a clockwise direction and subsequently contacted the right front door surface of Vehicle #2 with the left rear fender. Vehicle #1 continued in a southeast direction 5.5 m (18.0') crossing the eastbound travel lane and coming to the final rest position (FRP) in the westbound travel lane (refer to the scene diagram on page 3). Vehicle #2 remained in its travel lane and came to FRP 1.0 m (3.3') from the first point of impact (POI) in a 10 degree counterclockwise rotation.

The driver of Vehicle #1, a 29 year old female who was 162.6 cm (64.0") tall and weighed 72.6 kg (160.0 lb.), sustained a fracture of the left forearm, contusions of the right cheek, left hip and abdomen, and pain of the sternum and right chest in the vicinity of the first and second ribs. She exited her vehicle unassisted via the driver's door. Rescue arrived within five minutes of the crash and transported the driver via ambulance to a local hospital where she was admitted for treatment. The driver remained in the hospital for six days where she underwent surgery to repair the fracture of the left forearm.

The 21 year male driver of Vehicle #2 was unrestrained and struck the windshield with his head. An unrestrained 23 year male right front occupant also struck the windshield with his head. Both passengers refused medical treatment.

17. *Key Words* Comminuted fracture of the left radius AIS-3 level injury Driver side air bag		18. *Distribution Statement* General Public	
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[redacted] 1997

CALSPAN AIR BAG DEPLOYMENT

CALSPAN CASE NO. CA 94-42

VEHICLE #1 - 1991 DODGE SPIRIT
VEHICLE #2 - 1985 FORD TEMPO GL

LOCATION - NEW YORK

CRASH DATE - [redacted] 1994

Summary

An on-site investigation was conducted into a two vehicle crash which occurred on [redacted] 1994 at [redacted] in the [redacted] New York. The weather at the time of the crash was overcast. The crash occurred at the junction of a driveway and a two lane, asphalt, undivided straight section of roadway which was wet from earlier precipitation.

A 1991 Dodge Spirit (Vehicle #1) equipped with a driver side air bag was exiting the driveway of a gas station in a southerly direction and attempted to make a left turn onto the east/west roadway. A 1985 Ford Tempo GL (Vehicle #2) traveling westbound struck the left front fender of Vehicle #1 at a CRASH3 estimated impact speed of 25.0 km/h (15.0 mph). Vehicle #1 rotated in a clockwise direction and subsequently contacted the right front door surface of Vehicle #2 with the left rear fender. Vehicle #1 continued in a southeast direction 5.5 m (18.0') crossing the eastbound travel lane and coming to the final rest position (FRP) in the westbound travel lane (refer to the scene diagram on page 3). Vehicle #2 remained in its travel lane and came to FRP 1.0 m (3.3') from the first point of impact (POI) in a 10 degree counterclockwise rotation.

The driver of Vehicle #1, a 29 year old female who was 162.6 cm (64.0") tall and weighed 72.6 kg (160.0 lb.) , sustained a fracture of the left forearm, contusions of the right cheek, left hip and abdomen, and pain of the sternum and right chest in the vicinity of the first and second ribs. She exited her vehicle unassisted via the driver's door. Rescue arrived within five minutes of the crash and transported the driver via ambulance to a local hospital where she was admitted for treatment. The driver remained in the hospital for six days where she underwent surgery to repair the fracture of the left forearm.

Direct contact on Vehicle #1 began at the left front bumper corner and extended rearward 100.3 cm (39.5"). The maximum crush on the left front fender was located adjacent to the left front impact sensor (refer to photographs #29 - #30) and measured 22.8 cm (9.0"). The related Collision Deformation Classification (CDC) was 10-LFEW-02. This resulted in a total delta V of 18.0 km/h (11.0 mph) as computed by the CRASH3 algorithm. Vehicle #1's air bag deployment sequence was initiated during the first impact.

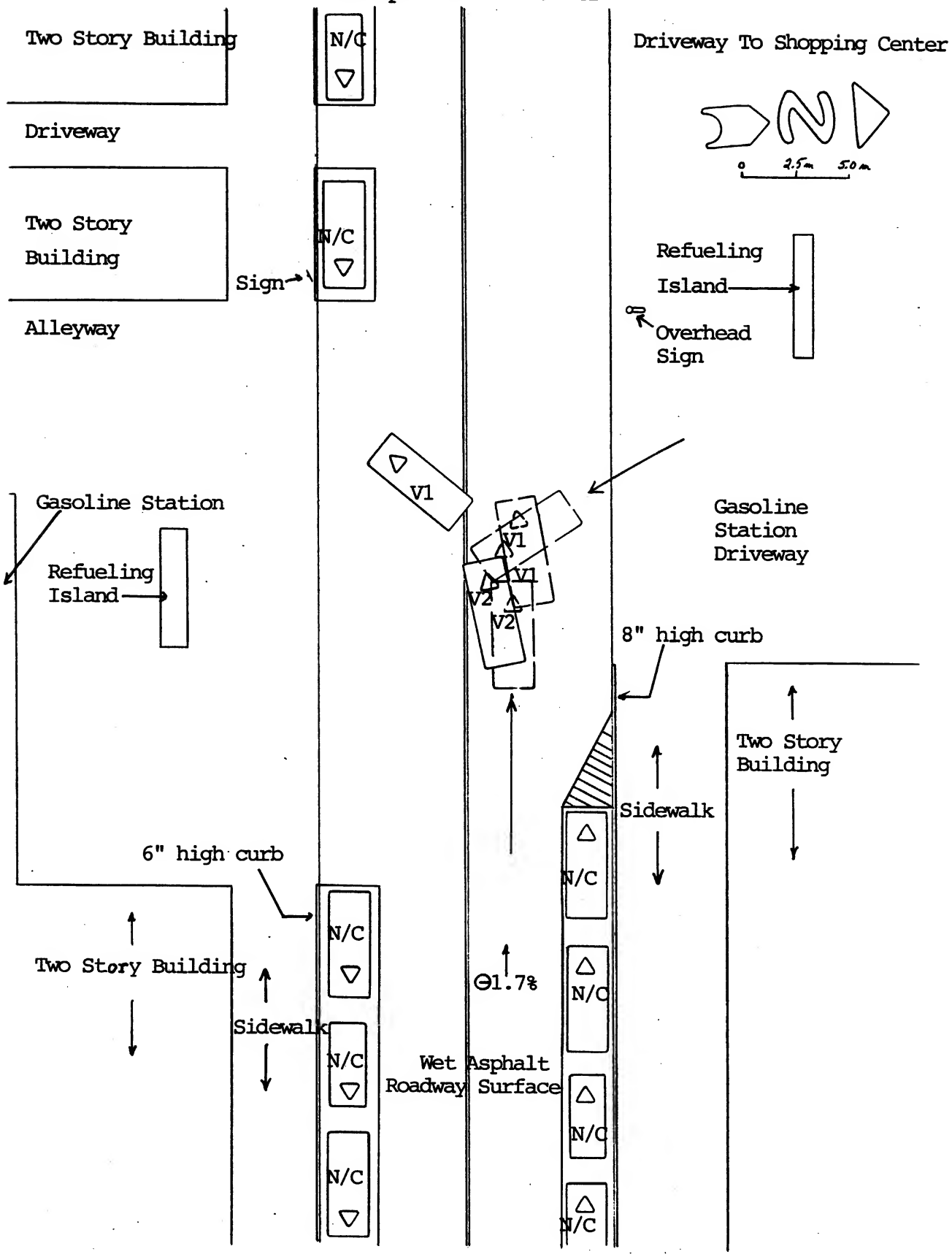
At the time of air bag deployment, Driver #1's left forearm was positioned over the air bag module cover in preparation to make the left turn. As the air bag initiated the deployment sequence, the air bag module cover contacted the driver's forearm resulting in a comminuted fracture of the left radius. Her left arm was subsequently propelled upward by the expanding air bag resulting in a spider web crack pattern in the glazing which was located just above and rearward of the steering wheel rim (refer to photographs #34 - #36).

Contact damage on the frontal plane of Vehicle #2 began at the left front bumper corner and extended 87.5 cm (34.5") to the right. The maximum crush of 29.2 cm (11.5") was recorded at the left front bumper corner. The CDC for this impact was 01-FYEW-2. The total delta V computed by the damage routine of the CRASH3 speed reconstruction program was 19.0 km/h (12.0 mph).

The 21 year male driver of Vehicle #2 was unrestrained and struck the windshield with his head. An unrestrained 23 year male right front occupant also struck the windshield with his head. Both passengers refused medical treatment.

Crash Scene Schematic

Calspan Case No. 94-42



CRASH DEMOGRAPHIC DATA	
Location:	2 lane undivided state highway
City/Township:	[redacted], New York
Area/Type:	Business district
Investigating Police Agency:	[redacted] Police Department
Accident Type:	Two vehicle left turn into path collision
Air Bag Vehicle Driver Injury Severity:	Serious (AIS-3)

AMBIENCE	
Viewing Conditions:	Daylight
Weather:	Overcast/ cloudy
Road Surface:	Wet

HIGHWAY	
Type:	State highway
Number Of Lanes:	2 travel lanes with two adjacent parking lanes east of the crash site
Roadway Width:	13.3 m (43.7') curb to curb
Surface:	Asphalt
Median:	None
Edge:	Curbs with defined parking spaces which were 2.4 m (8.0') wide, located 10.0 m (33.3') east of the POI
Vertical Alignment:	-1.7 percent westbound direction
Horizontal Alignment:	Straight
Estimated Coefficient Of Friction:	0.4
Traffic Density:	Moderate (center of [redacted] business district)

TRAFFIC CONTROLS	
Signals:	None
Signs:	None

Markings:	Full barrier yellow center lines and white broken parking lane lines
Speed Limit:	48 km/h (30 mph)

VEHICLE DESCRIPTION	
Vehicle #1	
Description:	1991 Dodge Spirit, 4 door sedan
V.I.N.:	1B3XA46K9MF(Serial # omitted)
Color:	Red
Odometer:	81,672 km (50750 miles)
Engine:	2.5 L
Transmission:	3 speed automatic
Steering:	Power
Brakes:	Power assisted front disc and rear drum brakes
Padding:	Upper and mid instrument panel, soft edge steering wheel rim and air bag module cover, door panels, door arm rests, seats, roof liner, and sunvisors
Active Restraints:	3-point lap and shoulder belts in the four outboard seating positions, 2-point lap belts in the center front and rear seat positions
Passive Restraints:	Driver Supplemental Restraint System - Air Bag which deployed during the first impact sequence with Vehicle #2
Defects:	None
Tow Status:	Towed due to damage

Vehicle #2	
Description:	1985 Ford Tempo GL, 4 door sedan
V.I.N.:	2FABP22X2FB(Serial # omitted)
Color:	White
Odometer:	184,902 km (114,896 miles)
Engine:	2.3 L
Transmission:	3 speed automatic

Steering:	Power steering
Brakes:	Power assisted front disc and rear drum brakes
Padding:	Upper and mid instrument panel, soft edge steering wheel rim, center console arm rest, door panels, door arm rests, seats, roof liner, and sunvisors
Active Restraints:	3-point lap and shoulder belts in the front seat outboard seat positions, 2-point lap belts in the three rear seat positions
Passive Restraints:	None
Defects:	None
Tow Status:	Towed due to damage

VEHICLE DAMAGE

Vehicle #1 - Exterior:

Damage to Vehicle #1 involved the left front frontal area and the left rear side plane as the result of contact by the frontal plane of the Vehicle #2 and subsequent sideslap due to vehicle rotation. Direct contact damage for the first impact began at the left front bumper corner and extended 100.3 cm (39.5") rearward. The total direct and induced length of deformation was 126.5 cm (49.8"). The maximum crush of 22.8 cm (9.0") was located 313.7 cm (123.5") forward of the left rear axle which was adjacent to the left front air bag sensor.

The direct contact damage for the second impact began at the left rear bumper corner and extended forward 66.0 cm (26.0"). Crush values for Vehicle #1 are listed below:

Impact #1, Mid Fender Level	C_1 = 2.0 cm (0.8")	C_4 = 14.2 cm (5.6")
	C_2 = 3.6 cm (1.4")	C_5 = 13.4 cm (5.3")
	C_3 = 6.3 cm (2.2")	C_6 = 6.4 cm (2.5")
Impact #2, Mid Fender Level	C_1 = 0.3 cm (0.1")	C_4 = 0.3 cm (0.1")
	C_2 = 0.3 cm (0.1")	C_5 = 0.3 cm (0.1")
	C_3 = 0.3 cm (0.1")	C_6 = 0.3 cm (0.1")

Components damaged in the crash included the front bumper, the left front headlight assembly, the front fender, the left front wheel (refer to photographs #14 - #21) and the left rear fender (refer to photograph #22 - #24). The left wheelbase was reduced by 5.8 cm (2.3"). The front bumper energy absorbing devices (EAD) did not exhibit any stroking from impact compression.

The assigned CDCs for Vehicle #1 are listed in the following table:

Impact #1	10-LFEW-2
Impact #2	09-LBEW-1

Repair Cost: The insurance company ruled the damage to this vehicle exceeded $6,360 and rated it as a total loss.

Vehicle #1 - Interior:

Interior damage to the 1991 Dodge Spirit was associated with the air bag deployment and contact by the driver. The air bag module cover opened along the designed tear seam lines in the typical "H" configuration deployment pattern. A light red lipstick transfer was noted in Quadrant II (i.e., upper right quadrant) as shown in Figure 1. on page 10.

The windshield glazing exhibited a small spider web pattern which was attributed to contact by the driver's left hand. This was located 41.9 cm (16.5") left of the vehicle centerline and 15.2 cm (6.0") above the instrument panel.

The knee bolster exhibited a light tan smudge mark which was attributed to contact by the driver's right knee. This was located 28.7 cm (11.3") left of the vehicle centerline and 33.0 cm (13.0") down from the top of the instrument panel.

Driver #1 indicated that there were two unoccupied child safety seats in the vehicle at the time of the crash. The child safety seat in the right front seat was not secured to the vehicle and landed on the floor during the crash. The second child seat was secured in the rear seat row by the restraint belt and remained in place.

Upon inspection of the vehicle, the driver's seat was noted in a mid range position which was 11.4 cm (4.5") rearward from the full forward setting. However, this position was rearward of the normal placement as described by Driver #1. She indicated the seat was normally adjusted two notches rear of full forward which measured 3.3 cm (1.3") rearward from the full forward position. At this setting, the seat back support measured 47.0 cm (18.5") rearward from the air bag module cover measured at a height of 48.3 cm (19.0") above the seat cushion. The seat back rest angle measured 22 degrees rearward from vertical.

The steering column was adjusted one notch down from the full up position which was 38 degrees upward from a horizontal position. There was no forward movement of the steering column shear plate noted at the shear capsules.

Vehicle #2 - Exterior

The frontal plane of the Vehicle #2 contacted the left front fender of Vehicle #1 and was subsequently struck on the right front door by the left rear fender corner of Vehicle #1 during the rotation and sideslap. Direct contact during the first impact began at the left front bumper corner and extended 87.6 cm (34.5") to the right, ending 20.6 cm (8.1") right of the vehicle centerline. The total length of direct and induced damage along the frontal plane was 132.1 cm (52.0").

The direct contact damage length for the second was 55.9 cm (22.0"). This damage was located 154.9 cm (61.0") forward of the right rear axle. Crush values for both impacts are listed below:

Front Bumper, Impact #1	C_1 = 27.9 cm (11.0")	C_4 = 14.4 cm (5.7")
	C_2 = 21.6 cm (8.5")	C_5 = 9.4 cm (3.7")
	C_3 = 17.5 cm (6.9")	C_6 = 6.6 cm (2.6")
Right Front Door, Impact #2	C_1 = 0 cm (0")	C_4 = 1.3 cm (0.5")
	C_2 = 0.5 cm (0.2")	C_5 = 0.3 cm (0.1")
	C_3 = 1.3 cm (0.5")	C_6 = 0 cm (0")

Components damaged in the crash included the front bumper, the left front headlight assembly, the grille, the hood, the left front fender, the left front wheel, the left front door, and the right front directional light (refer to photographs #55 - #60). The left wheelbase was reduced by 7.4 cm (2.9").

The assigned CDCs for Vehicle #2 are listed in the following table:

Impact #1	01-FYEW-2
Impact #2	03-RPEW-1

Repair Cost: The insurance company ruled the damage to this vehicle exceeded $800 and rated it as a total loss.

Vehicle #2 - Interior

Interior damage to Vehicle #2 was associated with contacts by the driver and right front occupant (refer to photographs #71 - #78). The windshield glazing exhibited two typical spider web contact patterns which were attributed to contact by the driver's head and the right front occupant's head. The driver's head contact was located 32.3 cm (12.7") left of the vehicle centerline and 3.8 cm (1.5") below the windshield header. The right front occupant's head contact was located 41.4 cm (16.3") right of the vehicle centerline and 8.9 cm (3.5") below the windshield header.

A light scuff mark measuring 7.6 cm x 3.8 cm (3.0" x 1.5") on the lower instrument panel was attributed to contact by the driver's left knee during the first impact sequence. This mark was located 57.2 cm (22.5") left of the centerline and 10.2 cm (4.0") down from the vertical face of the lower instrument panel. Another scuff mark on this same panel measuring 10.2 cm x 2.0 cm (4.0" x 0.8") was located 16.5 cm (6.5") left of the centerline and 6.4 cm (2.5") down from the vertical face of the lower instrument panel. This mark was attribute to contact by the driver's right knee. There was no movement of the steering column shear capsules.

The grille assembly for the right side air vent located along the mid instrument panel level adjacent to the right front door surface was dislodged from its attachment bracket as a result of contact by the right front occupant's right hand. A light scuff mark on the lower edge of the glove box attributed to contact by the right front occupant's right lower leg was located 22.9 cm (9.0") right of the centerline.

Air Bag System

The air bag supplemental restraint system (SRS) in the 1991 Dodge Spirit deployed during the first impact with Vehicle #2. Although the longitudinal component of the delta V value as computed by the CRASH3 speed reconstruction program of -12.0 km/h (-7.0 mph) was lower than an anticipated value of 13 km/h - 19 km/h (8 mph - 12 mph) for air deployment, the location of the maximum crush with respect to the left front air bag impact sensor more than likely contributed to the air bag initiation sequence. The maximum crush of 22.8 cm (9.0"), located 313.7 cm (123.5") forward of the left rear axle, occurred adjacent to the left front air bag impact sensor (refer to photographs #29 - #30).

The vehicle was equipped with two forward impact sensors which were attached to the inner surface of the headlight mounting panel. These were located 40.6 cm (16.0") left and right of the vehicle centerline. Neither sensor was damaged during the crash.

The air bag module cover opened along the designed tear seams in the typical "H" pattern. There was no evidence of occupant contact on either the upper or lower module cover flaps. The lateral dimension of both module cover flaps measured 17.3 cm (6.8"). The vertical height dimension of the upper flap measured 6.1 cm (2.4") while the lower dimension measured 6.6 cm (2.6"). The thickness of the flap measured 3.1 mm (0.125").

The air bag was a tethered design with two 3.3 cm (1.3") diameter vent ports located at the 12 o'clock position and located 4.4 cm (1.8") apart (refer to photograph #43). The diameter of the air bag measured 67.6 cm (26.6") with a 16.0 cm (6.3") diameter stitched target area. The circumferential edge of the bag was stitched with a finished seam.

A light red cosmetic transfer (i.e., lipstick transfer) was noted in quadrant II (i.e., upper right quadrant). This transfer was 4.6 cm (1.8") in length and was located 12.1 cm (4.8") right of center and 8.9 cm (3.5") above quadrant IV (refer to Figure 1. on page 10 and photograph #41). A light

brown transfer was observed on the instrument panel side of the air bag which was attributed to post crash contact by rescue/tow personnel. The air bag identification data stamped on the instrument panel side of the air bag adjacent to the vent ports is listed in Figure 1.

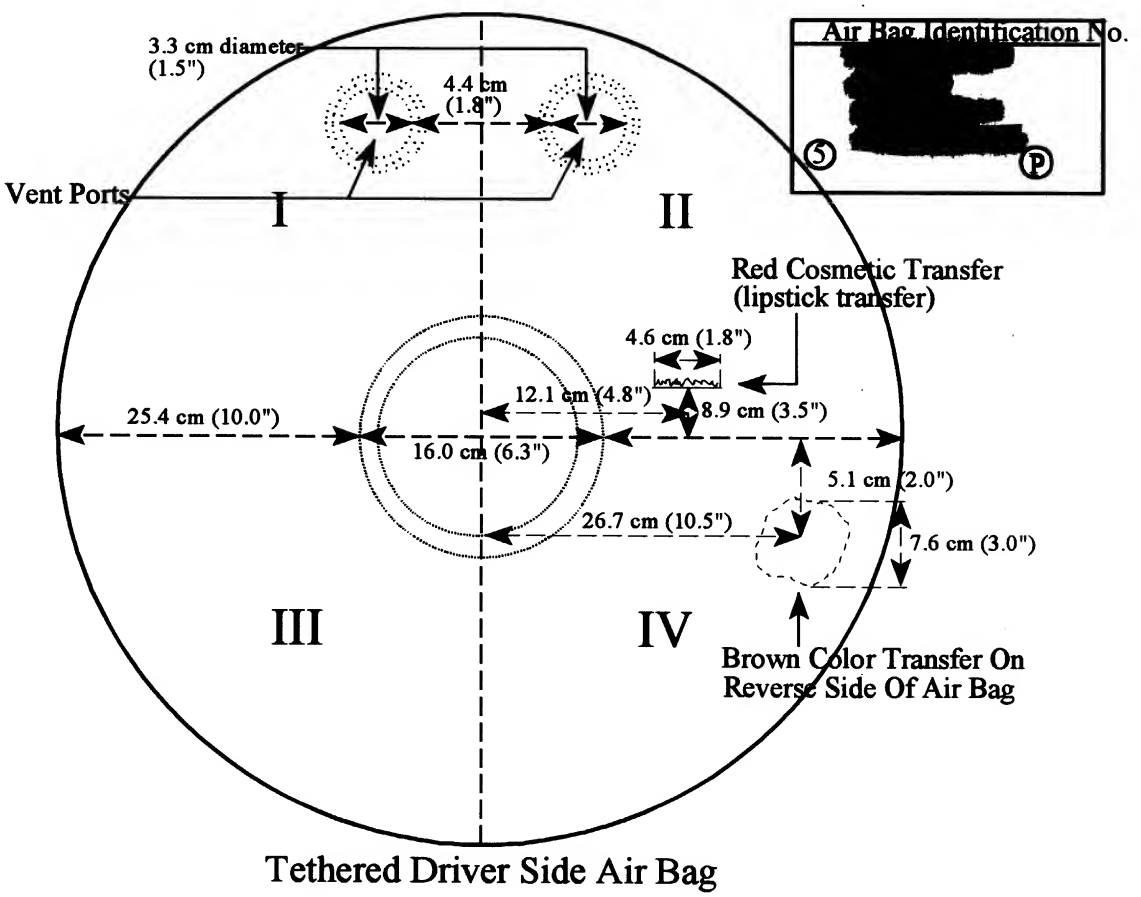


Figure 1

Vehicle Velocity Estimates

	Vehicle #1	Vehicle #2
Travel Speed:	23.0 km/h (14.0 mph)	32.2 km/h (20.0 mph) estimated by driver of Vehicle #1
Impact Speed:	23.0 km/h (14.0 mph)	25.0 km/h (15.0 mph)
Total ΔV:	18.0 km/h (11.0 mph)	19.0 km/h (12.0 mph)
Longitudinal ΔV:	-12.0 km/h (-7.0 mph)	-18.0 km/h (-11.0 mph)
Lateral ΔV:	13.0 km/h (8.0 mph)	-6.0 km/h (-4.0 mph)
Energy Absorption:	12,509 joules (9,225 ft-lb)	35,915 joules (26,486 ft-lb)

The impact speed and velocity changes were computed by the damage and trajectory algorithms of the CRASH3 program.

Collision Sequence

Pre-Crash:

The driver of the 1991 Dodge Spirit (Vehicle #1) was departing a gas station after refueling her vehicle which was located on the north side of the roadway and in the center of the village shopping district. The driver reportedly stopped in the apron of the driveway prior to accelerating into the roadway. Her travel plan incorporated a left turn with the intention of proceeding east. She was enroute to a business meeting which was a short distance from the gas station.

The driver of Vehicle #1 sight line of westbound traffic was restricted by vehicles legally parked along the northern curb edge. As she began to accelerate into the roadway, the driver noticed the approach of the 1985 Ford Tempo GL (Vehicle #2) from her left. She indicated there was insufficient time to attempt any avoidance maneuvers prior to the crash.

She was wearing the available manual lap and shoulder belt. The driver's seat was reportedly adjusted two notches rearward of the full forward position. Her left hand was positioned on the top right part of the steering wheel rim.

Crash:

The front plane of Vehicle #2 struck the left front fender of Vehicle #1 at a CRASH3 computed speed impact speed of 25.0 km/h (15.0 mph). Contact on Vehicle #1 began at the left front

bumper corner and extended 100.3 cm (39.5") rearward. This impact initiated the SRS deployment sequence. The driver's left forearm was positioned over the air bag module cover and was subsequently contacted by the module cover flaps and expanding air bag. Her left arm was propelled upward with her left hand contacting the windshield.

Vehicle #1 rotated in a clockwise direction and sideslapped the right front door surface of Vehicle #2 with its left rear fender surface. Vehicle #1 crossed the centerline and entered the eastbound travel lane.

Vehicle #2 rotated 10 degrees counterclockwise and traveled a distance of 1.0 m (3.3') to the final rest position. The driver and right front occupant were not restrained by the available manual three point lap and shoulder belts. They moved forward in response to the crash force and struck the windshield with their head.

Post Crash:

Final Rest - Vehicle #1 came to the final rest position (FRP) across the eastbound travel lane at a heading angle 50 degrees relative to zero North compass direction. The vehicle was blocking the travel lane and was moved to the roadway curb edge by mechanics who were among the first on the scene after the crash. They used a floor jack to elevate the front of the vehicle and push it out of the travel lane. The vehicle was subsequently towed from the scene to a local storage yard and held pending this investigation.

Vehicle #2 remained within the westbound travel lane at the FRP. It was also towed from the scene and was stored at the same local storage yard as Vehicle #1.

Driver Activities - The driver of Vehicle #1 exited the vehicle through the driver's door under her own power and walked a short distance to a gas station on the south side of the roadway. She claimed to be sitting on a refueling island when rescue personnel arrived. She was aware that something was wrong with her left arm as it was nonfunctional, but was not aware that it was fractured.

The driver of Vehicle #2 exited his vehicle under his own power through the driver's door. Likewise, the right front occupant exited through the right front door.

Police Activities - The local police department was located within a block of the crash site and arrived within five minutes of the crash.

Rescue Activities - An ambulance was dispatched and arrived within ten minutes of the crash. Emergency Medical Technicians (EMT) checked Driver #1's vital signs and applied a splint to her left arm. The EMT's initial diagnosis was a fracture/dislocation and neck pain. The driver was transported to a local hospital where she was seen in the emergency room and subsequently admitted for treatment.

Both occupants of Vehicle #2 sustained soft tissue injury of their forehead, but refused treatment at the scene. The police officers encouraged them to take advantage of the treatment offered by rescue citing that the state mandated no fault insurance provided medical coverage for victims of transportation crashes. They indicated to police that they would seek treatment later.

Scene Clearance - Both vehicles were towed by a local towing service from the scene and stored in a collision shop storage yard pending this investigation.

Human Factors/Occupant Data

Driver of Vehicle #1	
Age/Sex:	29 year old female
Height:	162.6 cm (64.0"),
Weight:	72.6 kg (160.0 lb.)
Manual Restraint System Usage:	Three point lap and torso restraint belt
Usage Source:	Vehicle inspection, police report, medical data
Eyewear:	Unknown
Vehicle Familiarity:	Primary driver of vehicle
Route Familiarity:	Very familiar
Trip Plan:	En route to a business meeting
Type of Medical Treatment:	Admitted

INJURY DATA

Following the crash, the Driver #1 was transported to a medical facility where she was evaluated and admitted. She arrived at the hospital with her left forearm secured in a splint which was applied by the responding EMTs. Her left forearm, orbits, chest, and abdomen were evaluated through radiography to determine extent of injury. X-ray film ruled out any anatomical injury of the of the zygomatic arch, sternum, and pelvis. The driver's complaint of tenderness of the right zygomatic arch chest and abdomen reportedly diminished during her stay in the hospital. The following table identifies the type of injury, the related AIS-90 injury code, and the injury source.

DRIVER #1 INJURIES	INJURY SEVERITY AIS-90	INJURY SOURCE
1. **Fracture of the left radius**	752804.32	Air bag module cover and air bag
Supplemental discussion Transverse fracture of the mid shaft of the left radius with distal fragments displaced laterally to the width of the shaft, shaft of the radius at the junction of the proximal one third with the distal two thirds of the shaft with butterfly fragment and multiple small comminuted fragments. There is a posterolateral angulation and malrotation of the fracture site, the fracture is associated with soft tissue injury and traumatic ulnar neuropathy. The fracture was repaired using an open reduction, internal fixation using an osteosynthesis technique and utilizing a 3.5 mm DC plate of 6 cortices fixation and protection with a long posterior splint.		
2. Contusion of the left hip (soft tissue over the left iliac region)	890402.12	Manual lap belt
3. Contusion below right eye	290402.11	Driver #1's left hand/forearm
4. Tenderness of the right zygomatic arch	Not a codeable injury	Driver #1's left hand/forearm
5. Contusion on abdomen	90402.10	Manual lap belt
6. Injury of the sternum (no soft tissue or skeletal specified)	Not a codeable injury	Torso belt
7. Tenderness of right side of chest over 1st and 2nd rib	Not a codeable injury	Driver #1's left hand/forearm

OCCUPANT KINEMATICS

Driver #1 was restrained by the manual three point lap and torso restraint belt at the time of the crash. She was exiting gas station driveway and attempting to make a left turn into the eastbound lane when her vehicle was struck on the left front fender by Vehicle #2 which was westbound. While attempting to make the left turn, the driver's left hand was oriented in the 1-2 o'clock sector on the steering wheel rim in order to turn the wheel in a counterclockwise direction. This hand position subsequently placed the driver's forearm over the air bag module cover at the time of deployment.

The longitudinal delta V of 12.0 km/h (7.0 mph) was considered a low threshold range for the SRS deployment initiation and may have resulted in a late air bag deployment sequence. As a result, the driver moved forward and to the left. Her pelvic region and upper torso loaded against

the lap and torso restraint belts resulting in a soft tissue contusion over the left iliac crest and tenderness over the sternum. The driver's knees contacted the knee bolster as noted by light scuff marks described in the *Vehicle #1 Interior* section on page 7 of this report.

Driver #1's left arm was contacted by the upper flap of the air bag module cover and expanding air bag. This interaction resulted in a comminuted fracture of the left radius. The left arm was then propelled upward and contacted the windshield directly above the steering wheel rim as noted by a spider web contact pattern in the glazing. Her arm then moved rearward and downward in a whipping motion and contacted the right side of her face which resulted in a contusion below the right eye. The forearm continued downward and contacted the driver's upper right chest area which resulted in tenderness over the right first and second rib.

Driver #1 came to rest in the driver's seat and released her restraint belt with her right hand. She was aware that her left arm was injured as she lack any sensation in her hand. She exited the vehicle through the left front door unassisted and walked to a nearby gas station where she sat on the raised platform of the gas pump island awaiting rescue.

APPENDIX A

Selected Prints

Calspan Case 94-42

SELECTED PRINTS
Air Bag Deployment
1991 Dodge Spirit
New York

1. Trajectory of the 1991 Dodge (Vehicle #1) while exiting a gas station driveway.

2. Lookback of Vehicle #1 trajectory from the gas station.

3. Point of impact (POI) between the left front fender of Vehicle #1 and the front of Vehicle #2 (1985 Ford Tempo GL) and Vehicle #1's subsequent trajectory to it final rest position (FRP) across the east bound travel lane.

4. Lookback view of Vehicle #1's trajectory at its FRP.

5. Approach trajectory of Vehicle #2 in the westbound lane 75 meters (250') prior to the POI.

6. Approach trajectory of Vehicle #2 - 60 meters (200') prior to the POI.

7. Approach trajectory of Vehicle #2 - 45 meters (150') prior to the POI.

8. Approach trajectory of Vehicle #2 - 30 meters (100') prior to the POI.

9. Approach trajectory of Vehicle #2 - 15 meters (50') prior to the POI.

10. Approach trajectory of Vehicle #2 - 7.5 meters (25.0') prior to the POI.

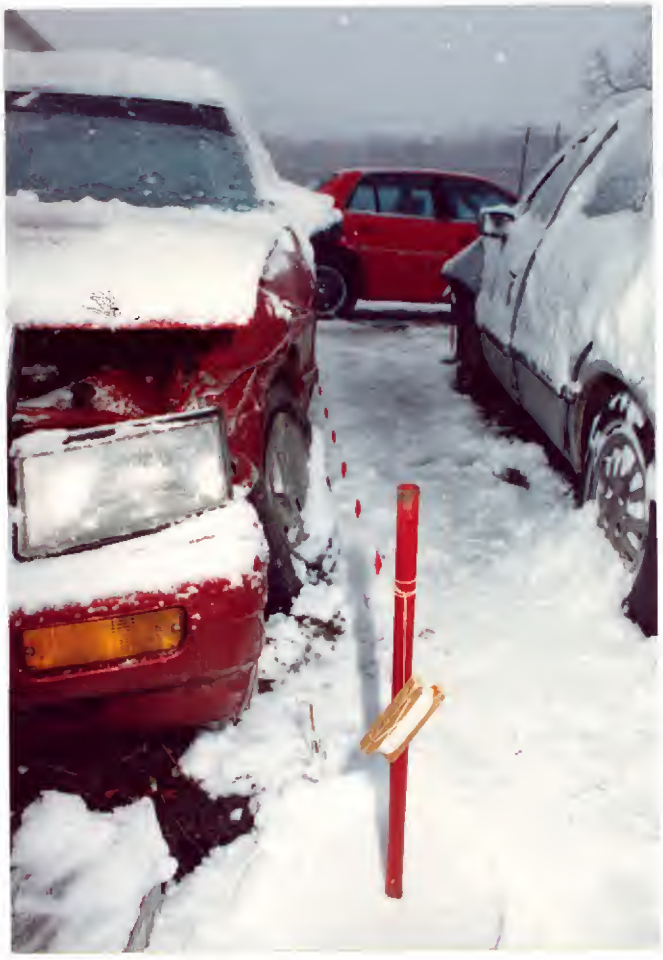
11. View of Vehicle #2's trajectory at POI and FRP.

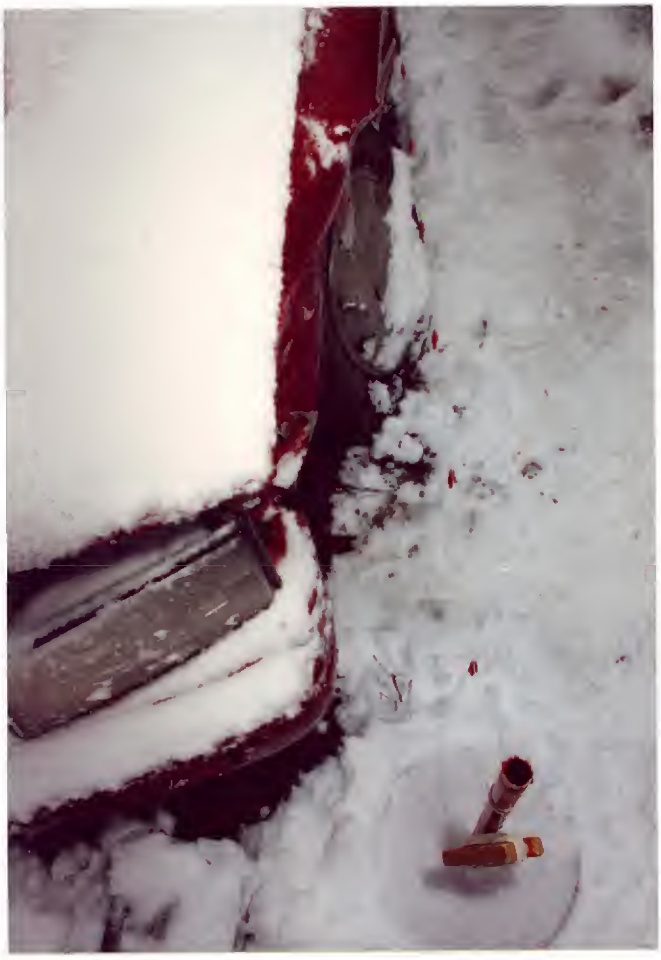
12. Lookback trajectory of Vehicle #2 - 15 meters (50') west of the POI.

13. Lookback of Vehicle #2's trajectory - 3 meters (10') west of the POI.

14. Frontal view of the 1991 Dodge Spirit (Vehicle #1).

15. A longitudinal view of the left side plane showing the extent of lateral crush.





16. Overhead view of the lateral crush pattern along the left front fender.

17. A view of the left front corner of Vehicle #1 showing the area of contact damage.

18. A lateral view of the left front fender showing the area of contact damage.

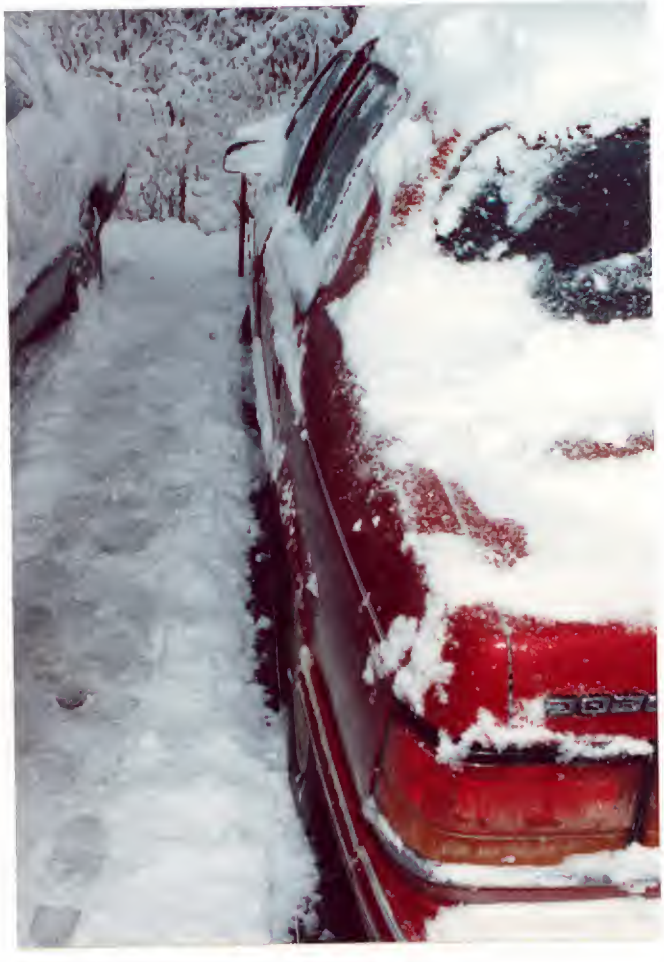
19. A close-up view of the maximum crush on the left front fender which occurred in the vicinity of the left front air bag system impact sensor.

20. View of the left front tire showing contact damage.

21. View of Vehicle #1's windshield highlighting the spider web pattern in the glazing resulting from the driver's left hand contact.

22. View of Vehicle #1's left side plane showing a light sideslap contact pattern from contact with Vehicle #2 which extended 66 cm (26") forward from the left rear bumper corner.

23. Close-up view of the sideslap contact pattern.

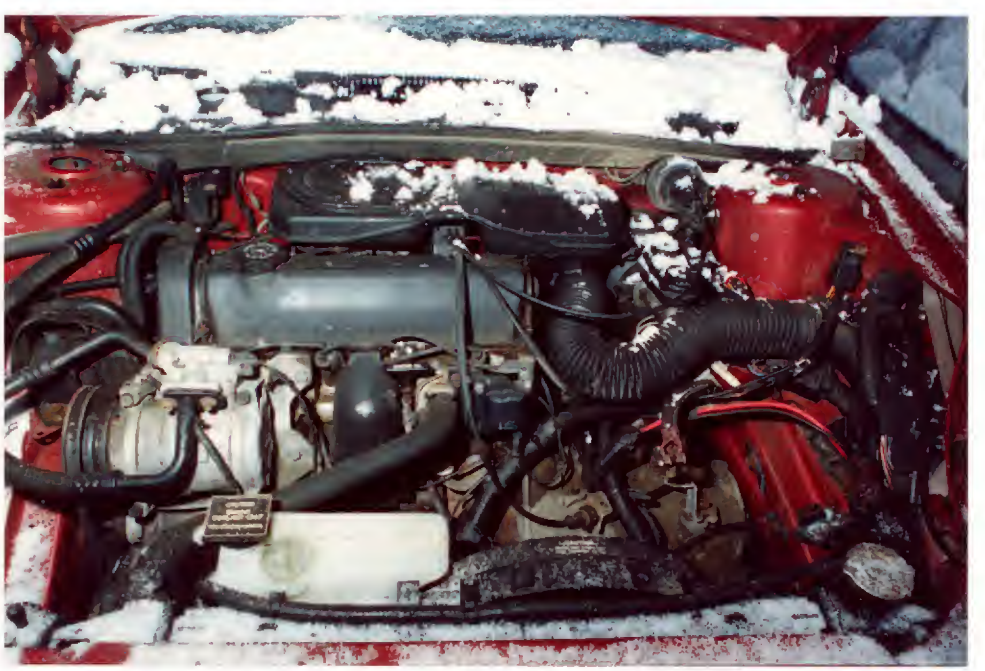


24. A longitudinal view of the left side plane illustrating minimal residual crush resulting from the sideslap.

25. View of the right rear corner of Vehicle #1.

26. View of the right side plane.

27. View of the right front corner.



28. View of the Vehicle #1's engine compartment.

29. Overhead view of the left front fender corner showing the relationship between the deformation and the left front air bag impact sensor.

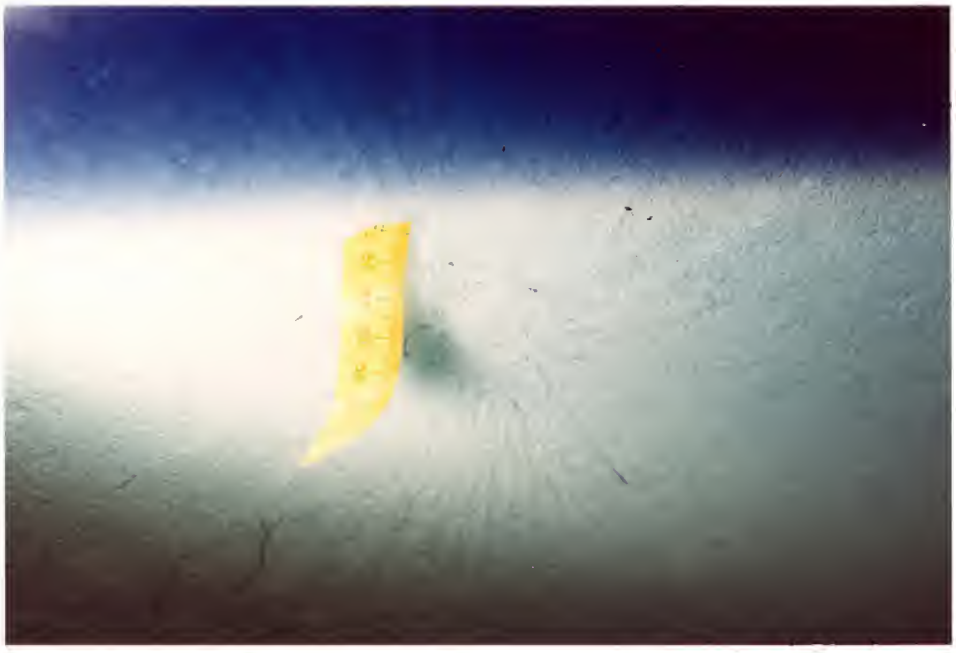
30. Close-up overhead view of the left front impact sensor.

31. View of the left front bumper energy absorbing device (EAD) indicating no compression.

32. View of the right front bumper EAD indicating no compression.

33. Lateral view of Vehicle #1's interior taken from the left side of the vehicle.

34. View of the driver's side of Vehicle #1 highlighting driver contact on the windshield and the deployed air bag.



35. Close-up view of the spider web contact pattern on the windshield.

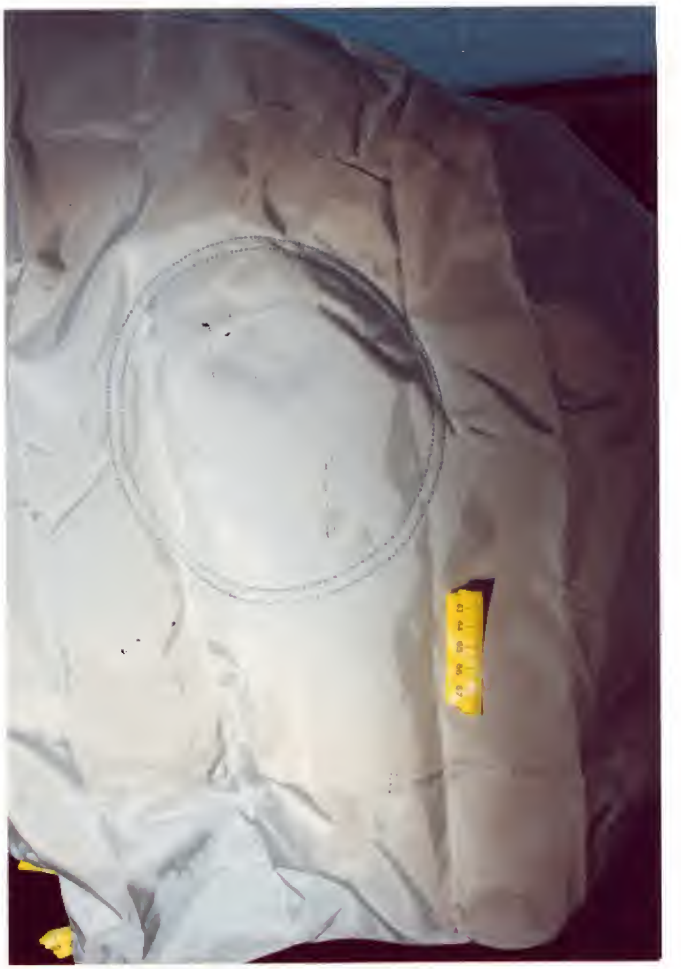
36. View of the contact pattern on the windshield in relationship to the steering wheel rim taken from the right side of the vehicle.

37. View of the spider web contact pattern with respect to the top dead center of the steering wheel rim.

38. View of the upper flap of the air bag module cover.

39. View of the lower flap of the air bag module cover.

40. View of the driver air bag rotated 80^0 clockwise as observed upon inspection.



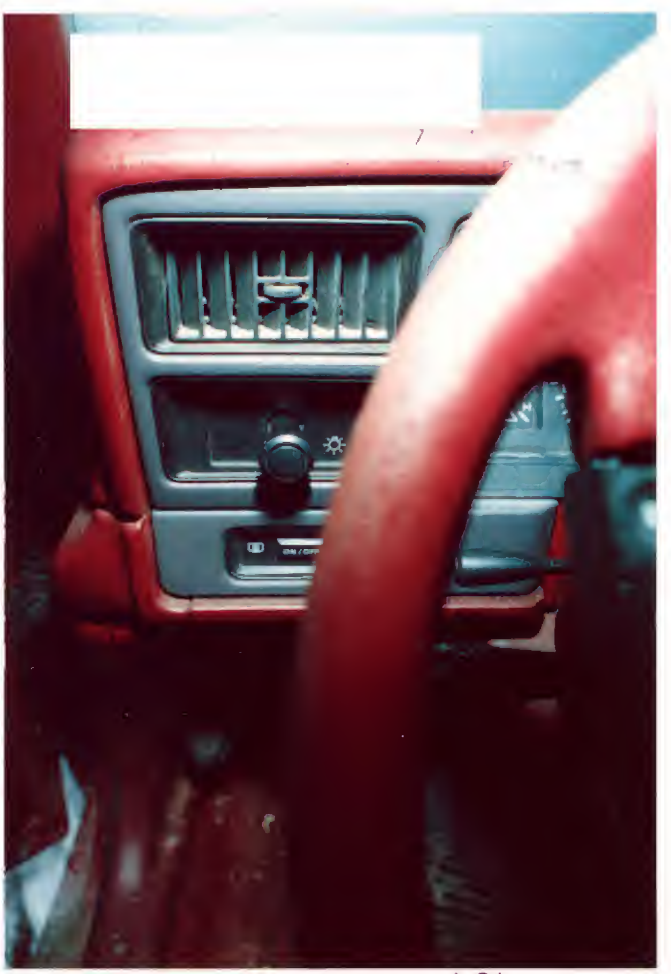
41. View of a light red transfer (i.e., lipstick) in the upper right quadrant of the air bag.

42. Lateral view of the air bag, steering wheel, and driver's door.

43. View of the vent ports located on the top instrument panel side of the air bag.

44. View of the air bag identification number.

45. View of the knee bolster.



46. View of the headlight switch with respect to the steering wheel rim.

47. View of the knee bolster showing a light tan transfer.

48. View of the steering column shear capsules and shear plate with no displacement.

49. Vertical view of the driver's side of the vehicle showing the windshield contact pattern and deployed air bag.

50. Vertical view of the center of the instrument panel.

51. View of the right front seating area.

52. Lateral view of the front seating area illustrating the relative position of the driver seat with the steering wheel at the time of the crash.

53. View of the driver's door arm rest.

54. View of the rear seat area taken from the right side of the vehicle.

55. Frontal view of the Vehicle #2 (1985 Ford Tempo GL) showing contact damage resulting from the impact with Vehicle #1.

56. Close-up view of the contact damage in the center third of the vehicle's frontal plane.

57. View of the contact damage at the left front corner of Vehicle #2.

58. View of windshield showing spider web contact patterns resulting from contact by the driver and right front passenger.

59. Closer view of the contact pattern on the windshield of Vehicle #2 resulting from contact by the driver.

60. View of the left corner of the vehicle.

61. Longitudinal view of the vehicle's left side plane showing body profile displacement.

62. Lateral view of the frontal plane showing the rearward displacement of the front bumper.

63. Overhead view of the frontal plane illustrating the crush profile.

64. View of the left side of Vehicle #2.

65. View of the left rear corner of Vehicle #2.

66. View of the right rear corner.

67. View of Vehicle #2's right side plane.

68. Close-up view of contact damage on the right front door resulting from the sideslap impact with Vehicle #1.

69. View of the right front corner of Vehicle #2.

70. Lateral view of the front seating area.

71. Angular view of Vehicle #2's instrument panel taken from the left side of the vehicle.

72. View of the lower instrument panel showing a scuff mark below the headlight switch from the driver's left knee.

73. A close-up view of the scuff mark on the lower instrument panel by the driver's right knee.

74. View of the left shear capsule indicating no detectable movement.

75. Vertical view of the left side of the instrument panel highlighting the spider web pattern in the windshield from driver contact.

76. Close-up view of the spider web pattern resulting from contact by the driver.

77. View of the center third of the instrument panel of Vehicle #2.

78. View of the right third of the instrument panel and windshield showing a light spider web pattern resulting from contact by the right front occupant.

79. View of the rear seat area of Vehicle #2 from the left side.

Appendix B

CRASH3 Speed Reconstruction Program Output

SUMMARY OF CRASHPC RESULTS USING DAMAGE

SCI Case 94-42

	SPEED CHANGE (DAMAGE)	SPEED CHANGE (LINEAR MOMENTUM AND SPINOUT)	IMPACT SPEED (LINEAR MOMENTUM AND SPINOUT)
VEHICLE #1			
TOTAL	18 KPH (11 MPH)	18 KPH (11 MPH)	23 KPH (14 MPH
LONGITUDINAL	-12 KPH (-7 MPH)	-12 KPH (-8 MPH)	23 KPH (14 MPH
LATITUDINAL	13 KPH (8 MPH)	12 KPH (8 MPH)	0 KPH (0 MPH
PDOF ANGLE	-48 DEGREES	-45 DEGREES	
ENERGY DISSIPATED =	12509 JOULES (	9225 FT-LB)	
VEHICLE #2			
TOTAL	19 KPH (12 MPH)	19 KPH (12 MPH)	25 KPH (15 MPH
LONGITUDINAL	-18 KPH (-11 MPH)	-18 KPH (-11 MPH)	25 KPH (15 MPH
LATITUDINAL	-6 KPH (-4 MPH)	-7 KPH (-4 MPH)	0 KPH (0 MPH
PDOF ANGLE	19 DEGREES	22 DEGREES	
ENERGY DISSIPATED =	35915 JOULES (	26486 FT-LB)	

SCENE INFORMATION

	VEHICLE #1	VEHICLE #2
IMPACT X-POSITION	5.5 M. (18.0 FT.)	1.2 M. (3.9 FT.
IMPACT Y-POSITION	2.5 M. (8.2 FT.)	2.0 M. (6.6 FT.
IMPACT HEADING ANGLE	247 DEGREES	360 DEGREES
REST X-POSITION	8.0 M. (26.2 FT.)	2.0 M. (6.6 FT.
REST Y-POSITION	-1.7 M. (-5.6 FT.)	1.0 M. (3.3 FT.
REST HEADING ANGLE	-49 DEGREES	-10 DEGREES
SIDE-SLIP ANGLE	0 DEGREES	0 DEGREES
DIRECTION OF ROTATION	CW	CCW
AMOUNT OF ROTATION	<360	<360

COLLISION AND SEPARATION

	VEHICLE #1	VEHICLE #2
COLLISION		
IMPACT X-POSITION	5.5 M. (18.0 FT.)	1.2 M. (3.9 FT
IMPACT Y-POSITION	2.5 M. (8.2 FT.)	2.0 M. (6.6 FT
IMPACT HEADING ANGLE	247 DEGREES	360 DEGREES
SEPARATION (USING SPINOUT)		
US	11 KPH (7 MPH)	7 KPH (5 MPH
VS	12 KPH (8 MPH)	-7 KPH (-4 MPH
PSISD	53 DEG/SEC	-14 DEG/SEC
RELATIVE VELOCITY (LINEAR MOMENTUM)		
SPEED ALONG LINE THROUGH CG	11 KPH (7 MPH)	25 KPH (15 MPH
SPEED ORTHOGONAL TO CG LINE	20 KPH (13 MPH)	-3 KPH (-2 MPH

CLOSING VELOCITY (LINEAR MOMENTUM) = 36 KPH (22 MPH)

DAMAGE DATA

	VEHICLE #1	VEHICLE #2
SIZE CATEGORY	3	2
STIFFNESS CATEGORY	3	9
VEHICLE WEIGHT	1353 KGS (2983 LBS)	1252 KGS (2760 LBS)
CDC	10LFEW2	01FYEW2
PDOF ANGLE	-48 DEGREES	19 DEGREES
CRUSH LENGTH	126 CM. (50 IN.)	142 CM. (56 IN.)
C1	2 CM. (1 IN.)	28 CM. (11 IN.)
C2	4 CM. (1 IN.)	22 CM. (9 IN.)
C3	6 CM. (2 IN.)	17 CM. (7 IN.)
C4	14 CM. (6 IN.)	14 CM. (6 IN.)
C5	13 CM. (5 IN.)	9 CM. (4 IN.)
C6	6 CM. (3 IN.)	7 CM. (3 IN.)
D	163 CM. (64 IN.)	-23 CM. (-9 IN.)
D'	178 CM. (70 IN.)	-38 CM. (-15 IN.)

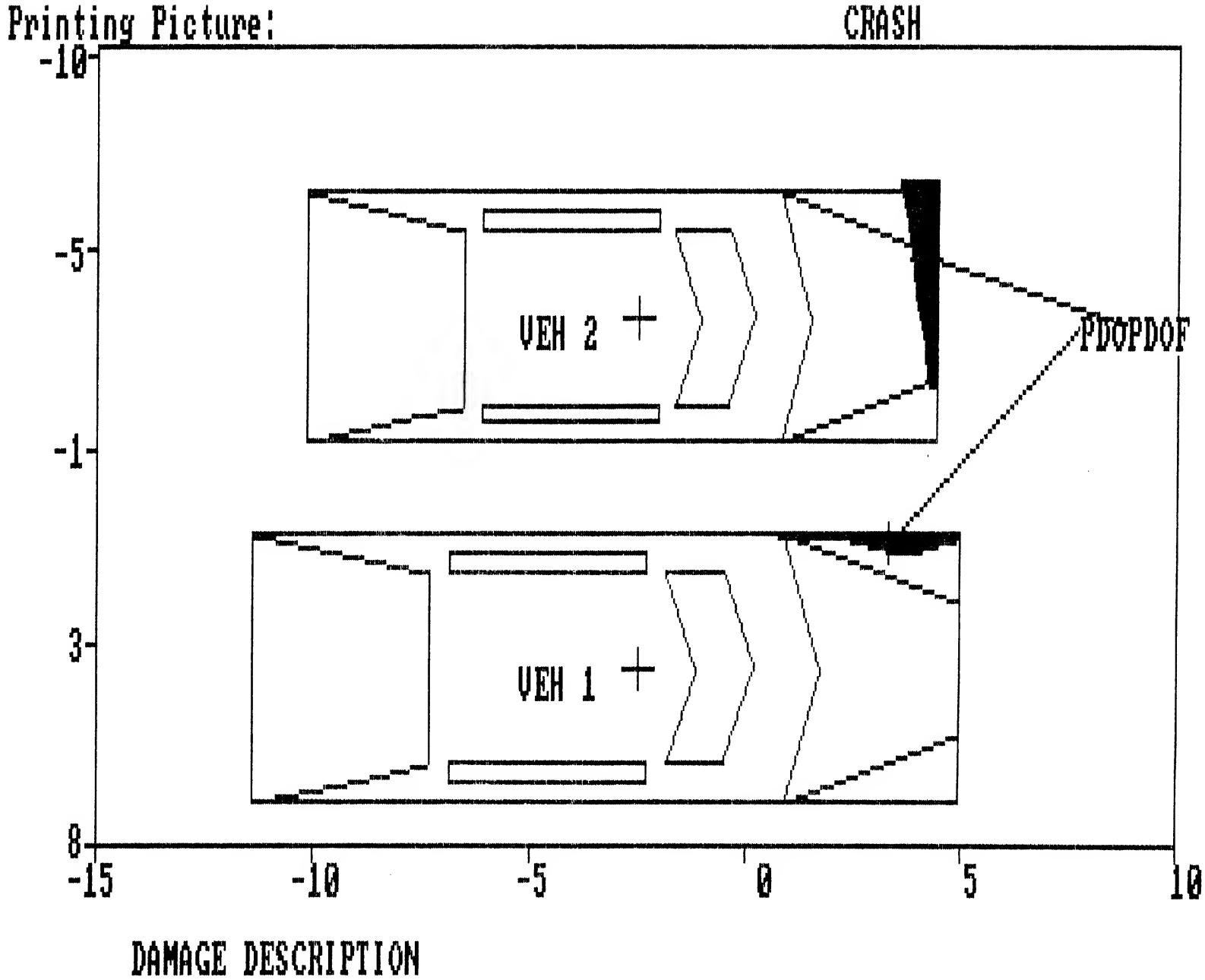
(* INDICATES DEFAULT VALU

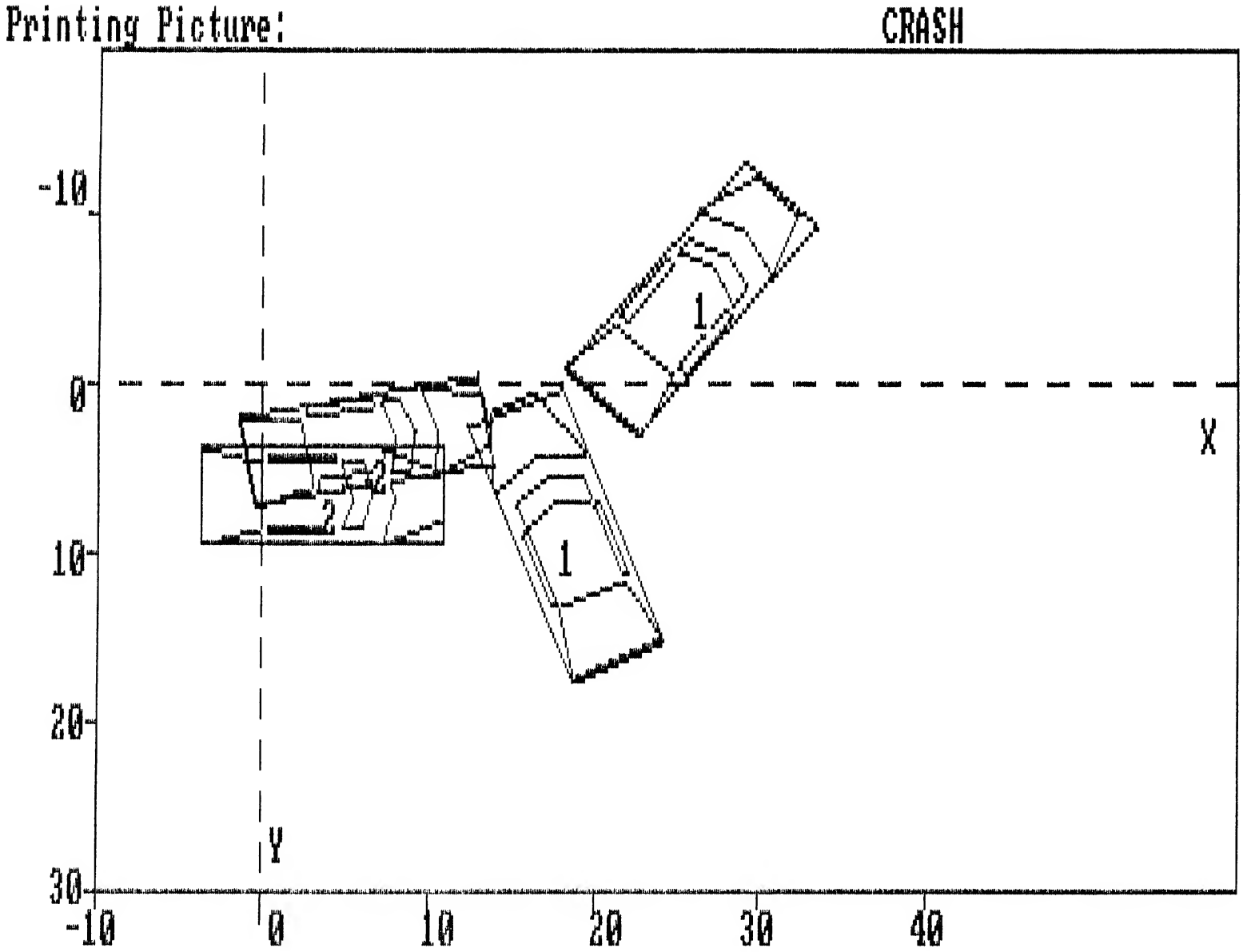
DIMENSIONS AND INERTIAL PROPERTIES

	VEHICLE #1	VEHICLE #2
CG TO FRONT AXLE	130 CM. (51 IN.)	118 CM. (46 IN.)
CG TO REAR AXLE	141 CM. (56 IN.)	127 CM. (50 IN.)
TRACK	150 CM. (59 IN.)	139 CM. (55 IN.)
CG TO FRONT OF VEH	228 CM. (90 IN.)	212 CM. (83 IN.)
CG TO REAR OF VEH	-270 CM. (-106 IN.)	-233 CM. (-92 IN.)
CG TO SIDE OF VEH	92 CM. (36 IN.)	85 CM. (34 IN.)
MOMENT OF INERTIA	11694 KGS (25780 LBS)	9606 KGS (21178 LBS)
VEHICLE MASS	4 KGS (8 LBS)	3 KGS (7 LBS)

ROLLING RESISTANCE		
LEFT FRONT WHEEL	1.00	.50
RIGHT FRONT WHEEL	.50	.50
LEFT REAR WHEEL	.01	.01
RIGHT REAR WHEEL	.01	.01

COEFFICIENT OF FRICTION = .40


Printing Picture:
CRASH
-10
-5
-1
3
8
VEH 2
VEH 1
PDOPDOF
-15
-10
-5
0
5
10
DAMAGE DESCRIPTION



SCENE DESCRIPTION

U.S. Department of Transportation

National Highway Traffic Safety Administration

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number — —
2. Case Number - Stratum 9 4-4 2
3. Vehicle Number 0 1

VEHICLE IDENTIFICATION

4. Vehicle Model Year 9 1
   Code the last two digits of the model year
   (99) Unknown

5. Vehicle Make (specify): 0 7
   Dodge
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (99) Unknown

6. Vehicle Model (specify): 0 1 9
   Spirit
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (999) Unknown

7. Body Type 0 4
   Note: Applicable codes may be found on the back of this page.

8. Vehicle Identification Number

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	B	3	X	A	4	6	K	9	M	F	[redacted]					

   Left justify; Slash zeros and letter Z (Ø and Z)
   No VIN—Code all zeros
   Unknown—Code all nines

OFFICIAL RECORDS

9. Police Reported Vehicle Disposition 1
   (0) Not towed due to vehicle damage
   (1) Towed due to vehicle damage
   (9) Unknown

10. Police Reported Travel Speed 9 9 9
    Code to the nearest kph (NOTE: 000 means less than 0.5 kph)
    (160) 159.5 kph and above
    (999) Unknown

    — — mph X 1.6093 = — — — kph

11. Police Reported Alcohol Presence 0
    (0) No alcohol present
    (1) Yes (alcohol present)
    (7) Not reported
    (8) No driver present
    (9) Unknown

    Note: See variables 37 through 55 (Page 4) for information on Other Drugs

12. Alcohol Test Result For Driver 9 6
    Code actual value (decimal implied before first digit—0.xx)
    (95) Test refused
    (96) None given
    (97) AC test performed, results unknown
    (98) No driver present
    (99) Unknown

    Source: _____

ACCIDENT RELATED

13. Speed Limit 0 4 8
    (000) No statutory limit
    Code posted or statutory speed limit in kph
    (999) Unknown

    — — mph X 1.6093 = — — — kph

14. Attempted Avoidance Maneuver 0 1
    (01) No avoidance actions
    (02) Braking (no lockup)
    (03) Braking (lockup)
    (04) Braking (lockup unknown)
    (05) Releasing brakes
    (06) Steering left
    (07) Steering right
    (08) Braking and steering left
    (09) Braking and steering right
    (10) Accelerating
    (11) Accelerating and steering left
    (12) Accelerating and steering right
    (97) No driver present
    (98) Other action (specify):

    _____
    (99) Unknown

15. Accident Type 8 2
    Applicable codes may be found on the back of page two of this field form
    (00) No impact
    Code the number of the diagram that best describes the accident circumstance
    (98) Other accident type (specify):

    _____
    (99) Unknown

****** SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 ******

OCCUPANT RELATED

16. Driver Presence in Vehicle: 1
(0) Driver not present
(1) Driver present
(9) Unknown

17. Number of Occupants This Vehicle: 01
(00-96) Code actual number of occupants for this vehicle
(97) 97 or more
(99) Unknown

18. Number of Occupant Forms Submitted: 01

VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight: 1,270
_____Code weight to nearest 10 kilograms.
(045) Less than 450 kilograms
(610) 6,100 kilograms or more
(999) Unknown

2,801 lbs X .4536 = 1,271 kgs

Source: _____

20. Vehicle Cargo Weight: 0,000
_____Code weight to nearest 10 kilograms.
(000) Less than 5 kilograms
(450) 4,500 kilograms or more
(999) Unknown

__,___ lbs X .4536 = __,___ kgs

RECONSTRUCTION DATA

21. Towed Trailing Unit: 0
(0) No towed unit
(1) Yes—towed trailing unit
(9) Unknown

22. Documentation of Trajectory Data for This Vehicle: 0
(0) No
(1) Yes

23. Post Collision Condition of Tree or Pole (For Highest Delta V): 0
(0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify):

(9) Unknown

24. Rollover: 0
(0) No rollover (no overturning)

Rollover (primarily about the longitudinal axis)
(1) Rollover, 1 quarter turn only
(2) Rollover, 2 quarter turns
(3) Rollover, 3 quarter turns
(4) Rollover, 4 or more quarter turns (specify):

(5) Rollover--end-over-end (i.e., primarily about the lateral axis)
(9) Rollover (overturn), details unknown

OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this Vehicle): 0

26. Rear Override/Underride (this Vehicle): 0

(0) No override/underride, or not an end-to-end impact

Override (see specific CDC)
(1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify):

Underride (see specific CDC)
(4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify):

(7) Medium/heavy truck or bus override
(9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

27. Heading Angle For This Vehicle: 247

28. Heading Angle For Other Vehicle: 000

29. Basis for Total Delta V (highest) 2

Delta V Calculated
(1) CRASH program—damage only routine
(2) CRASH program—damage and trajectory routine
(3) Missing vehicle algorithm

Delta V Not Calculated
(4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
(5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
(6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

COMPUTER GENERATED DELTA V

Highest

30. Total Delta V 018

18 Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: 000 means less than 0.5 kph)
(160) 159.5 kph and above
(999) Unknown

31. Longitudinal Component of Delta V + 012

-12 Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: __000 means greater than −0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(__999) Unknown

Highest

32. Lateral Component of Delta V + 013

13 Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: __000 means greater than −0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(__999) Unknown

33. Energy Absorption 12,500

12,509 Nearest 100 joules (highest)

_____ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)
(9997) 999,650 joules or more
(9999) Unknown

34. Confidence In Reconstruction Program Results (For Highest Delta V) 1
(0) No reconstruction
(1) Collision fits model — results appear reasonable
(2) Collision fits model — results appear high
(3) Collision fits model — results appear low
(4) Borderline reconstruction — results appear reasonable

35. Type of Vehicle Inspection 1
(0) No inspection
(1) Complete inspection
(2) Partial inspection (specify):
_____

36. Is this an AOPS Vehicle? 1
(0) No
(1) Yes - researcher determined
(2) VIN determined air bag system
(3) VIN determined automatic (passive) belts
(4) VIN determined air bag and automatic (passive) belts

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [ ] NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO

37. Police Reported Other Drug Presence 0
(0) No other drug(s) present
(1) Yes [other drug(s) present]
(7) Not reported
(8) No driver present
(9) Unknown

38. Police Reported Drug Evaluation Classification (DEC) Test For Driver 0
(0) No DEC process available or given
(1) DEC process given, results known
(2) DEC process given, results unknown
(3) DEC process available, unknown if given
(8) No driver present

39. Other Drug Specimen Test Type For Driver 0
(0) No specimen test given
(1) Blood test
(2) Urine test
(3) Other specimen tests (specify): _____
(7) Unspecified specimen test
(8) No driver present
(9) Unknown if specimen test given

DRUG EVALUATION CLASSIFICATION
OTHER DRUGS TEST RESULTS FOR DRIVER

	DEC Test Results	Specimen Test Results
Narcotic Drug	40. 0	41. 0
Depressant Drug	42. 0	43. 0
Stimulant Drug	44. 0	45. 0
Hallucinogen Drug	46. 0	47. 0
Cannabinoid Drug	48. 0	49. 0
Phencyclidine (PCP)	50. 0	51. 0
Inhalant Drug	52. 0	53. 0
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. 0	55. 0

Codes For DEC Test Results

(0) No DEC test given
(1) Passed DEC test
(2) Failed DEC test
(3) DEC test given—results unknown
(8) No driver present
(9) Unknown if DEC test given

Codes for Specimen Test Results

(0) No specimen test given
(1) Drug not found in specimen
(2) Drug found in specimen
(7) Specimen test given, results unknown or not obtained
(8) No driver present
(9) Unknown if specimen test given

OTHER DATA

56. Driver's Zip Code [redacted]

(00000) Driver not present
(00001) Driver not a resident of U.S. or territories
_____ Code actual 5-digit zip code
(99999) Unknown

57. Driver's Race/Ethnic Origin 1
(0) Driver not present
(1) White (non-Hispanic)
(2) Black (non-Hispanic)
(3) White (Hispanic)
(4) Black (Hispanic)
(5) American Indian, Eskimo or Aleut
(6) Asian or Pacific Islander
(8) Other (specify):
_____
(9) Unknown

58. Vehicle Special Use (This Trip) 0
(0) No special use
(1) Taxi
(2) Vehicle used as school bus
(3) Vehicle used as other bus
(4) Military
(5) Police
(6) Ambulance
(7) Fire truck or car
(8) Other (specify): _____
(9) Unknown

ROLLOVER DATA

If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank.
If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.
If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type 0
(0) No rollover
(1) Trip-over
(2) Flip-over
(3) Turn-over
(4) Climb-over
(5) Fall-over
(6) Bounce-over
(7) Collision with another vehicle
(8) Other rollover initiation type specify):
_____
(9) Unknown rollover initiation type

60. Location of Rollover Initiation 0
(0) No rollover
(1) On roadway
(2) On shoulder—paved
(3) On shoulder—unpaved
(4) On roadside or divided trafficway median
(9) Unknown

61. Rollover Initiation Object Contacted 00

62. Location on Vehicle Where Initial Principal Tripping Force Is Applied 0
(0) No rollover
(1) Wheels/tires
(2) Side plane
(3) End plane
(4) Undercarriage
(5) Other location on vehicle (specify):
_____
(8) Non-contact rollover forces (specify):
_____
(9) Unknown

63. Direction of Initial Roll 0
(0) No rollover
(1) Roll right - primarily about the longitudinal axis
(2) Roll left - primarily about the longitudinal axis
(5) End-over-end (i.e., primarily about the lateral axis)
(9) Unknown roll direction

PRECRASH DATA

64. Pre-Event Movement (Prior to Recognition of Critical Event) 97
(01) Going straight
(02) Slowing or stopping in traffic lane
(03) Starting in traffic lane
(04) Stopped in traffic lane
(05) Passing or overtaking another vehicle
(06) Disabled or parked in travel lane
(07) Leaving a parking position
(08) Entering a parking position
(09) Turning right
(10) Turning left
(11) Making a U-turn
(12) Backing up (other than for parking position)
(13) Negotiating a curve
(14) Changing lanes
(15) Merging
(16) Successful avoidance maneuver to a previous critical event
(97) Other (specify): Departing parking lot
(98) No driver present
(99) Unknown

PRECRASH DATA (Continued)

65. Critical Precrash Event 98

This Vehicle Loss of Control Due To:
(01) Blow out or flat tire
(02) Stalled engine
(03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
(04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
(05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
(06) Traveling too fast for conditions
(08) Other cause of control loss (specify): _____
(09) Unknown cause of control loss

This Vehicle Traveling
(10) Over the lane line on left side of travel lane
(11) Over the lane line on right side of travel lane
(12) Off the edge of the road on the left side
(13) Off the edge of the road on the right side
(14) End departure
(15) Turning left at intersection
(16) Turning right at intersection
(17) Crossing over (passing through) intersection
(19) Unknown travel direction

Other Motor Vehicle In Lane
(50) Stopped
(51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
(52) Traveling in same direction with higher speed
(53) Traveling in opposite direction
(54) In crossover
(55) Backing
(59) Unknown travel direction of other motor vehicle in lane

Other Motor Vehicle Encroaching Into Lane
(60) From adjacent lane (same direction)—over left lane line
(61) From adjacent lane (same direction)—over right lane line
(62) From opposite direction—over left lane line
(63) From opposite direction—over right lane line
(64) From parking lane
(65) From crossing street, turning into same direction
(66) From crossing street, across path
(67) From crossing street, turning into opposite direction
(68) From crossing street, intended path not known
(70) From driveway, turning into same direction
(71) From driveway, across path
(72) From driveway, turning into opposite direction
(73) From driveway, intended path not known
(74) From entrance to limited access highway
(78) Encroachment by other vehicle—details unknown

Pedestrian or Pedalcyclist, or Other Nonmotorist
(80) Pedestrian in roadway
(81) Pedestrian approaching roadway
(82) Pedestrian—unknown location
(83) Pedalcyclist or other nonmotorist in roadway (specify): _____
(84) Pedalcyclist or other nonmotorist approaching roadway (specify): _____
(85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

Object or Animal
(87) Animal in roadway
(88) Animal approaching roadway
(89) Animal—unknown location
(90) Object in roadway
(91) Object approaching roadway
(92) Object—unknown location

(98) Other critical precrash event (specify): This vehicle enters roadway from driveway
(99) Unknown

For Corrective Actions Attempted see variable GV14 (Attemped Avoidance Manuever)

66. Precrash Stability After Avoidance Maneuver 0
(0) No avoidance maneuver
(1) Tracking
(2) Skidding longitudinally—rotation less than 30 degrees
(3) Skidding laterally—clockwise rotation
(4) Skidding laterally—counterclockwise rotation
(7) Other vehicle loss-of-control (specify): _____
(8) No driver present
(9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action) 0
(0) No avoidance maneuver
(1) Vehicle stayed in travel lane where avoidance maneuver was initiated
(2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
(3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
(4) Vehicle departed roadway
(5) Avoidance maneuver initiated off roadway
(8) No driver present
(9) Directional consequences unknown

***** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), *****
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

***** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE *****
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

U.S. Department of Transportation
National Highway Traffic Safety Administration

EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: —
2. Case Number - Stratum: 94-42
3. Vehicle Number: 01

VEHICLE IDENTIFICATION

VIN 1B3XA46K9MF (Serial # omitted) Model Year 91

Vehicle Make (specify): Dodge Vehicle Model (specify): Spirit

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L
01	Begin 243.8cm (96.0") forward of LR Axle	Begin 215.9cm (85.0") forward of LR axle
02	Begin Left Rear Bumper Corner	

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure and document on the vehicle diagram the location of maximum crush.

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

Specific Impact Number	Plane of Impact C-Measurements	Direct Damage Width (CDC)	Direct Damage Max Crush	Field L	C_1	C_2	C_3	C_4	C_5	C_6	±D
1	Mid fender level	100.3cm (39.5")	31.2cm (12.3")	126.5cm (49.8")	2.0cm (0.8")	7.4cm (2.9")	10.1cm (4.0")	19.3cm (7.6")	19.8cm (7.8")	16.5cm (6.5")	163.4cm (64.4")
	Free space		8.4cm (3.3")		0	3.8cm (1.5")	4.6cm (1.8")	5.1cm (2.0")	6.4cm (2.5")	10.1cm (4.0")	
	Resultant		22.8cm (9.0")		2.0cm (0.8")	3.6cm (1.4")	6.3cm (2.2")	14.2cm (5.6")	13.4cm (5.3")	6.4cm (2.5")	
2	Mid fender level	66.0cm (26.0")		66.0cm (26.0")	0.3cm (0.1")	0.3cm (0.1")	0.3cm (0.1")	0.3cm (0.1")	0.3cm (0.1")	0.3cm (0.1")	198cm (78.0")
			Located	313.7cm (123.5")	forward of the						
			Left rear axle								

VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE

a. Rotation physically restricted		b. Tire deflated	
RF	2	RF	2
LF	1	LF	2
RR	2	RR	2
LR	2	LR	2

(1) Yes (2) No (8) NA (9) Unk.

TYPE OF TRANSMISSION

☐ Manual ☑ Automatic

ORIGINAL SPECIFICATIONS

Wheelbase	(103.3") 262.4 cm
Overall Length	(181.2") 460.2 cm
Maximum Width	(68.1") 173.0 cm
Curb Weight	(2801lb) 1270.5 kg
Average Track	(57.4") 145.8 cm
Front Overhang	(38.7") 98.3 cm
Rear Overhang	(39.3") 99.8 cm
Undeformed End Width	(56.0") 142.2 cm
Engine Size: cyl./displ.	2.5 L

WHEEL STEER ANGLES

(For locked front wheels or displaced rear axles only)

RF	⊕	0 5	°
LF	⊕	1 0	°
RR	±	— —	°
LR	±	— —	°

Within ± 5 degrees

DRIVE WHEELS

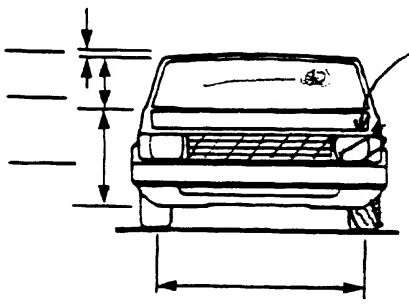
☑ FWD ☐ RWD ☐ 4WD

Approximate Cargo Weight

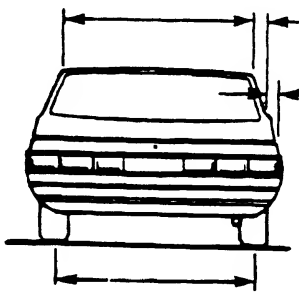
(20 lbs) 9 kg

2 child safety seats

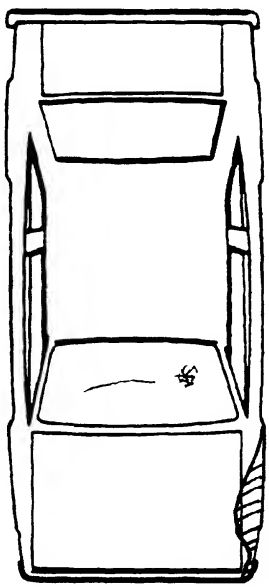
MEASUREMENTS IN CENTIMETERS

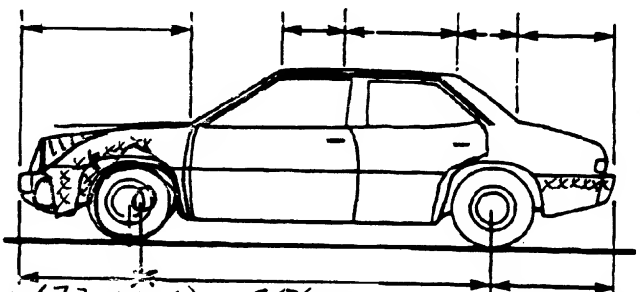


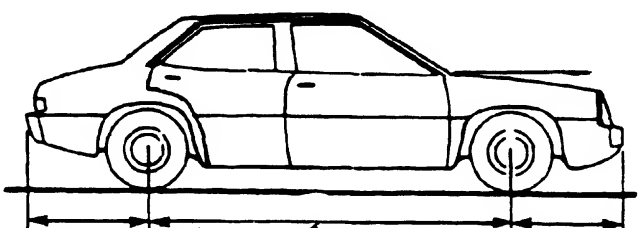
Left front air bag impact sensor located 40.6 cm (16.0") left of the ⊕ on engine side of the vertical headlight mounting bracket



The front bumper energy absorber devices (EAD) were not compressed during crash







NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

(01-30) — Vehicle Number

Noncollision
- (31) Overturn — rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify): _____
- (35) Noncollision injury
- (38) Other noncollision (specify): _____
- (39) Noncollision — details unknown

Collision With Fixed Object
- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment
- (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post
- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)
- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail) (specify): _____
- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): _____
- (69) Unknown fixed object

Collision with Nonfixed Object
- (71) Motor vehicle not in-transport
- (72) Pedestrian
- (73) Cyclist or cycle
- (74) Other nonmotorist or conveyance
- (75) Vehicle occupant
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (79) Object fell from vehicle in-transport
- (88) Other nonfixed object (specify): _____
- (89) Unknown nonfixed object
- (98) Other event (specify): _____
- (99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force (degrees)	Incremental Value of Shift	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
01	02	-50	--	L	F	E	W	02
02	02	-90	--	L	B	E	W	01

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. 01	5. 02	6. 10	7. L	8. F	9. E	10. W	11. 02

Second Highest Delta "V"

12. 02	13. 02	14. 09	15. L	16. B	17. E	18. W	19. 01

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. L	21. C_1	C_2	C_3	C_4	C_5	C_6	22. ±D
127 (49.8")	002 (0.8")	004 (1.4")	006 (2.2")	(5.6")	013 (5.3")	006 (2.5")	+163 (64.4")

Second Highest Delta "V"

23. L	24. C_1	C_2	C_3	C_4	C_5	C_6	25. ±D
066 (26.0")	000 (0.1")	000 (0.1")	000 (0.1")	000 (0.1")	000 (0.1")	000 (0.1")	-198 (-78.0")

26. Are CDCs Documented but Not Coded on The Automated File? 0
(0) No
(1) Yes

27. Researcher's Assessment of Vehicle Disposition 1
(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

28. Original Wheelbase ___ Code to the nearest centimeter
(999) Unknown

103.3 inches X 2.54 = 262 centimeters

29. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle? 0
    (0) No post manufacturer modifications
    (1) Yes - post manufacturer modifications (specify): _____
    _____
    _____
    (Include photograph of CERTIFICATION PLACARD in case report)
    (9) Unknown if vehicle is modified

30. Fire Occurrence 0
    (0) No fire

    Yes, fire occurred
    (1) Minor
    (2) Major
    (9) Unknown

31. Origin of Fire 0
    (0) No fire
    (1) Vehicle exterior (front, side, back, top)
    (2) Exhaust system
    (3) Fuel tank (and other fuel retention system parts)
    (4) Engine compartment
    (5) Cargo/trunk compartment
    (6) Instrument panel
    (7) Passenger compartment area
    (8) Other location (specify):
    _____
    (9) Unknown

32. Type of Fuel Tank-1 1

33. Type of Fuel Tank-2 0
    (0) No fuel tank (electrical vehicle)
    (1) Metallic
    (2) Non-metallic
    (9) Unknown

34. Fuel Tank-1 Location 4

35. Fuel Tank-2 Location 0
    (0) No fuel tank
    (1) Aft of center of the rear wheels (rear axle) centered
    (2) Aft of center of the rear wheels (rear axle) left side
    (3) Aft of center of the rear wheels (rear axle) right side
    (4) Forward of center of the rear wheels (rear axle) centered
    (5) Forward of center of the rear wheels (rear axle) left side
    (6) Forward of center of the rear wheels (rear axle) right side
    (7) Over center of the rear wheels (rear axle)
    (8) Other (specify):
    _____
    (9) Unknown

36. Fuel Tank-1 Filler Cap Location 3

37. Fuel Tank-2 Filler Cap Location 0
    (0) No fuel tank
    (1) On back plane
    (2) Aft of center of the rear wheels (rear axle) on left side plane
    (3) Aft of center of the rear wheels (rear axle) on right side plane
    (4) Forward of center of the rear wheels (rear axle) on left side plane
    (5) Forward of center of the rear wheels (rear axle) on right side plane
    (6) Over the center of the rear wheels (rear axle) on left side plane
    (7) Over the center of the rear wheels (rear axle) on right side plane
    (8) Other (specify):_____
    (9) Unknown

38. Fuel Tank-1 Damage 1

39. Fuel Tank-2 Damage 0
    (0) No fuel tank
    (1) No damage to fuel tank
    (2) Deformed, no seam failure
    (3) Deformed, with a seam failure
    (4) Punctured
    (5) Lacerated (ripped)
    (6) Abraded (scraped)
    (7) Filler neck separation from the fuel tank
    (8) Other damage (specify):
    _____
    (9) Unknown

40. Location of Fuel System-1 Leakage 1

41. Location of Fuel System-2 Leakage 0
(0) No fuel tank
(1) No fuel leakage

Primary Area Of Leakage
(2) Tank
(3) Filler neck
(4) Cap
(5) Lines/pump/filter
(6) Vent/emission recovery
(8) Other (specify): _____
(9) Unknown

42. Fuel Type-1 01

43. Fuel Type-2 00

Single Fuel Type
(00) No fuel tank
(01) Gasoline
(02) Diesel
(03) CNG (Compressed Natural Gas)
(04) LPG (Liquid Petroleum Gas) also known as Propane
(05) LNG (Liquid Natural Gas)
(06) Methanol (M100 or M85)
(07) Ethanol (E100 or E85)
(08) Other (Hydrogen or others) (specify): _____

Electric Powered or Electric/Solar Powered Vehicles
(10) Lead Acid Battery
(11) Nickel-Iron Battery
(12) Nickel-Cadmium Battery
(13) Sodium Metal Chloride Battery
(14) Sodium Sulfur Battery
(18) Other (Specify): _____

(98) Other Hybrid (specify): _____

(99) Unknown fuel type

44. Is This Vehicle Equipped With More Than Two Fuel Tanks? 0
(0) No (one or two tanks only)

Yes - More Than Two Tanks
(1) Yes -- no damage to any tank or filler cap and no fuel system leakage
(2) Yes -- no damage to any tank or filler cap but there is fuel system leakage (specify leakage location): _____
(3) Yes -- damage to an additional tank or filler cap and there is fuel system leakage (specify the following):
Type of tank _____
Tank location _____
Filler cap location _____
Tank damage _____
Location of leakage _____
Type of fuel _____
(9) Unknown if more than two tanks

COMMENTS

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED AND WAS NOT AN AOPS *** (I.E., GV09=0 OR 9 AND GV36=0), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.

U.S. Department of Transportation
National Highway Traffic Safety Administration

INTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number ___
2. Case Number - Stratum 94-42
3. Vehicle Number 01

INTEGRITY

4. Passenger Compartment Integrity 00
(00) No integrity loss

Yes, Integrity Was Lost Through
(01) Windshield
(02) Door (side)
(03) Door/hatch (back door)
(04) Roof
(05) Roof glass
(06) Side window
(07) Rear window (backlight)
(08) Roof and roof glass
(09) Windshield and door (side)
(10) Windshield and roof
(11) Side and rear window (side window and backlight)
(12) Windshield and side window
(13) Door and side window
(98) Other combination of above (specify): _____
(99) Unknown

Door, Tailgate or Hatch Opening

5. LF 1 6. RF 1 7. LR 1 8. RR 1 9. TG/H 0

(0) No door/gate/hatch
(1) Door/gate/hatch remained closed and operational
(2) Door/gate/hatch came open during collision
(3) Door/gate/hatch jammed shut
(8) Other (specify): _____
(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then code Ø

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision
(1) Door operational (no damage)
(2) Latch/striker failure due to damage
(3) Hinge failure due to damage
(4) Door structure failure due to damage
(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage
(6) Latch/striker and hinge failure due to damage
(8) Other failure (specify): _____
(9) Unknown

GLAZING

Glazing Damage from Impact Forces

15. WS 0 16. LF 0 17. RF 0 18. LR 0 19. RR 0
20. BL 0 21. Roof 8 22. Other 0

(0) No glazing damage from impact forces
(2) Glazing in place and cracked from impact forces
(3) Glazing in place and holed from impact forces
(4) Glazing out-of-place (cracked or not) and not holed from impact forces
(5) Glazing out-of-place and holed from impact forces
(6) Glazing disintegrated from impact forces
(7) Glazing removed prior to accident
(8) No glazing
(9) Unknown if damaged

Glazing Damage from Occupant Contact

23. WS 2 24. LF 0 25. RF 0 26. LR 0 27. RR 0
28. BL 0 29. Roof 0 30. Other 0

(0) No occupant contact to glazing or no glazing
(1) Glazing contacted by occupant but no glazing damage
(2) Glazing in place and cracked by occupant contact
(3) Glazing in place and holed by occupant contact
(4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
(5) Glazing out-of-place by occupant contact and holed by occupant contact
(6) Glazing disintegrated by occupant contact
(9) Unknown if contacted by occupant

If No Glazing Damage ***And*** No Occupant Contact or No Glazing, Then Code IV31 Through IV46 As Ø

Type of Window/Windshield Glazing

31. WS 1 32. LF 0 33. RF 0 34. LR 0 35. RR 0
36. BL 0 37. Roof 0 38. Other 0

(0) No glazing contact and no damage, or no glazing
(1) AS-1 — Laminated
(2) AS-2 — Tempered
(3) AS-3 — Tempered-tinted
(4) AS-14 — Glass/Plastic
(8) Other (specify): _____
(9) Unknown

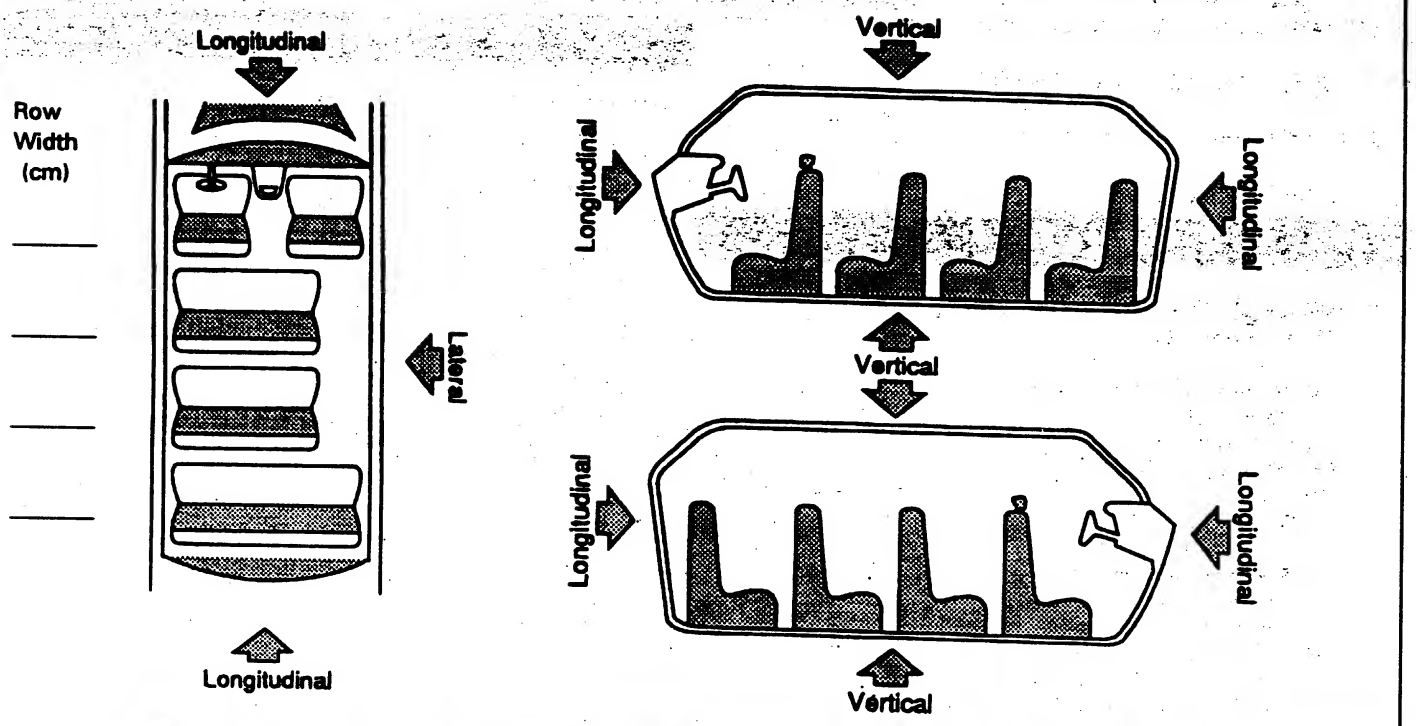
Window Precrash Glazing Status

39. WS 1 40. LF 0 41. RF 0 42. LR 0 43. RR 0
44. BL 0 45. Roof 0 46. Other 0

(0) No glazing contact and no damage, or no glazing
(1) Fixed
(2) Closed
(3) Partially opened
(4) Fully opened
(9) Unknown

INTRUSION WORKSHEET

Note: Sketch intruded areas



LOCATION OF INTRUSION	INTRUDED COMPONENT	(All Measurements Are In Centimeters) COMPARISON VALUE	—	INTRUDED VALUE	=	INTRUSION	DOMINANT CRUSH DIRECTION
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		
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			—		=		
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		

Document no more than the 15 most severe intrusions

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. No Intrusion	48.	49.	50.
2nd	51.	52.	53.	54.
3rd	55.	56.	57.	58.
4th	59.	60.	61.	62.
5th	63.	64.	65.	66.
6th	67.	68.	69.	70.
7th	71.	72.	73.	74.
8th	75.	76.	77.	78.
9th	79.	80.	81.	82.
10th	83.	84.	85.	86.

LOCATION OF INTRUSION

Front Seat
- (11) Left
- (12) Middle
- (13) Right

Second Seat
- (21) Left
- (22) Middle
- (23) Right

Third Seat
- (31) Left
- (32) Middle
- (33) Right

Fourth Seat
- (41) Left
- (42) Middle
- (43) Right

- (97) Catastrophic
- (98) Other enclosed area (specify) _____
- (99) Unknown

INTRUDING COMPONENT

Interior Components
- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel (side)
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan (includes sill)
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back door/panel (e.g., tailgate)
- (26) Other interior component (specify): _____
- (27) Side panel - forward of the A (A2)-pillar
- (28) Side panel - rear of the A (A2)-pillar

Exterior Components
- (30) Hood
- (31) Outside surface of this vehicle (specify): _____
- (32) Other exterior object in the environment (specify): _____
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): _____
- (99) Unknown

MAGNITUDE OF INTRUSION
- (1) ≥ 3 centimeters but < 8 centimeters
- (2) ≥ 8 centimeters but < 15 centimeters
- (3) ≥ 15 centimeters but < 30 centimeters
- (4) ≥ 30 centimeters but < 46 centimeters
- (5) ≥ 46 centimeters but < 61 centimeters
- (6) ≥ 61 centimeters
- (7) Catastrophic
- (9) Unknown

DOMINANT CRUSH DIRECTION
- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE	—	DAMAGE VALUE	=	DEFORMATION
	—		=	
	—		=	
	—		=	
	—		=	

STEERING COLUMN

87. Steering Column Type — 2
(1) Fixed column
(2) Tilt column
(3) Telescoping column
(4) Tilt and telescoping column
(8) Other column type (specify): _____
(9) Unknown

88. Blank — X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

89. Blank — X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

90. Blank — X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

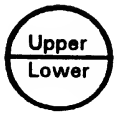
91. Blank — X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

92. Steering Rim/Spoke Deformation — 00
_____Code actual measured deformation to the nearest centimeter
(00) No steering rim deformation
(01-14) Actual measured value in centimeters
(15) 15 centimeters or more
(98) Observed deformation cannot be measured
(99) Unknown

93. Location of Steering Rim/Spoke Deformation — 00
(00) No steering rim deformation

Quarter Sections
(01) Section A
(02) Section B
(03) Section C
(04) Section D

Half Sections
(05) Upper half of rim/spoke
(06) Lower half of rim/spoke
(07) Left half of rim/spoke
(08) Right half of rim/spoke



(09) Complete steering wheel collapse
(10) Undetermined location
(99) Unknown

INSTRUMENT PANEL

94. Odometer Reading — 082,000
_____kilometers—Code to the nearest 1,000 kilometers
(000) No odometer
(001) Less than 1,500 kilometers
(500) 499,500 kilometers or more
(999) Unknown

50.750 miles X 1.6093 = 81.672 kilometers

Source: _____

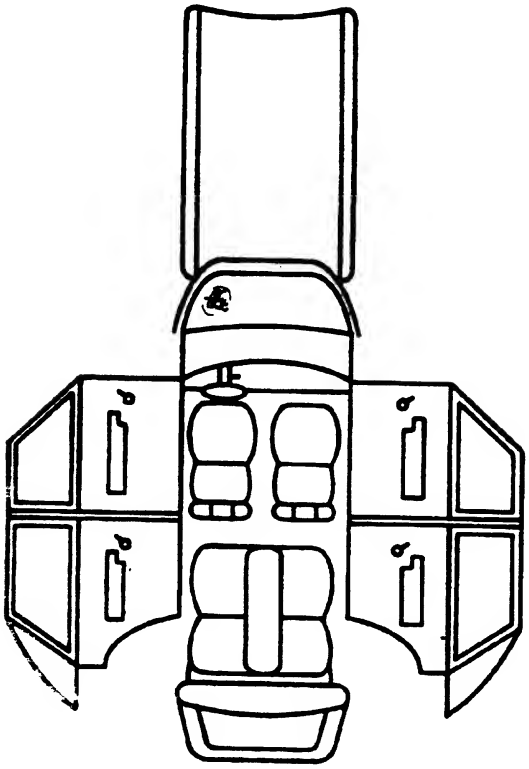
95. Instrument Panel Damage from Occupant Contact? — 0
(0) No
(1) Yes
(9) Unknown

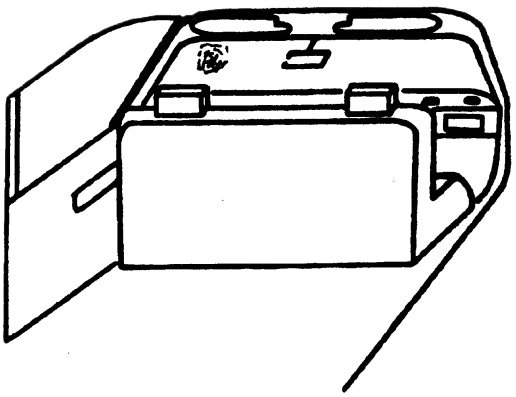
96. Knee Bolsters Deformed from Occupant Contact? — 0
(0) No
(1) Yes
(8) Not present
(9) Unknown

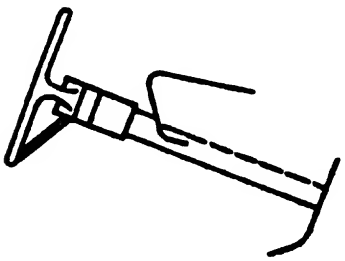
97. Did Glove Compartment Door Open During Collision(s)? — 0
(0) No
(1) Yes
(8) Not present
(9) Unknown

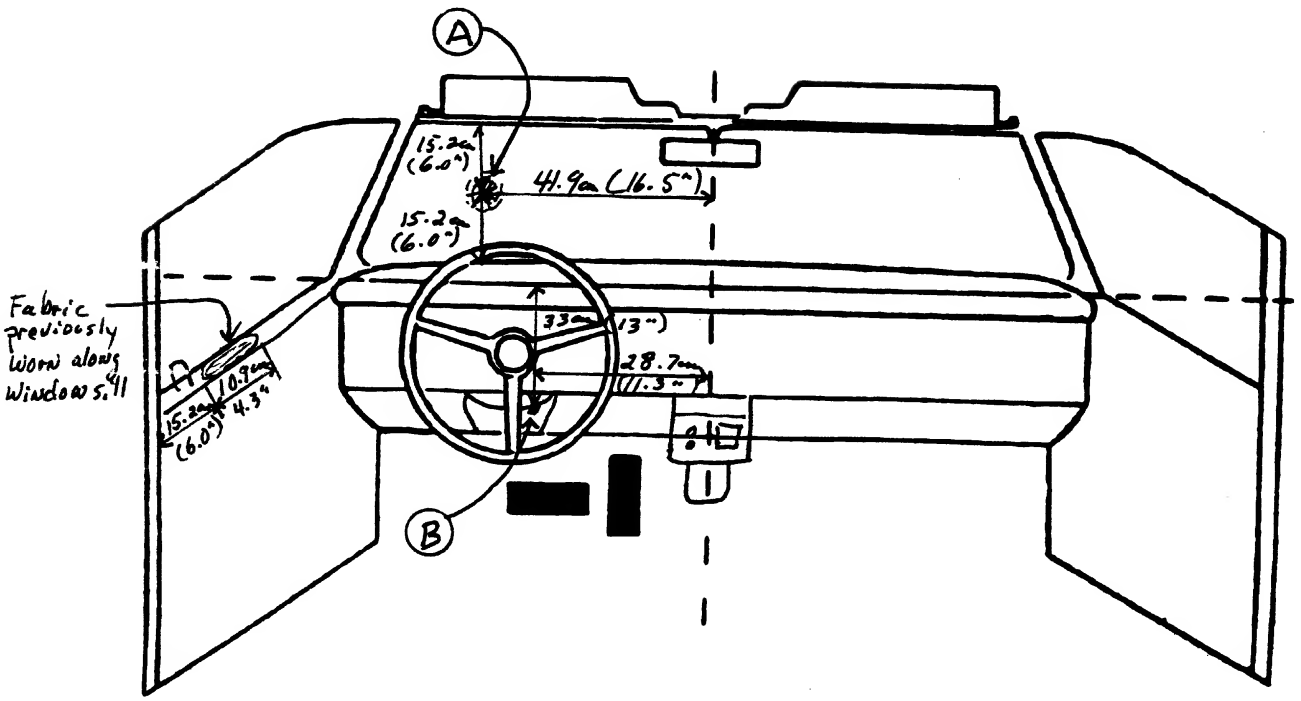
VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment









Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure.
Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.
Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	01	1	(L) Hand	Spider web pattern	1
B	13	1	(R) Knee	Light tan smudge mark	2
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					

CODES FOR INTERIOR COMPONENTS

FRONT
- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify):_____
- (19) Other front object (specify):

LEFT SIDE
- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left pillar (specify):
- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify):
- (28) Left side window sill

RIGHT SIDE
- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify):
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B pillar, or roof side rail.
- (37) Other right side object (specify):
- (38) Right side window sill

INTERIOR
- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify):_____
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
- (46) Other occupants (specify):
- (47) Interior loose objects
- (48) Child safety seat (specify):
- (49) Other interior object (specify):

ROOF
- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR
- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR
- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify):

CONFIDENCE LEVEL OF CONTACT POINT
- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

AIR BAGS

		Left	Right
FIRST	Availability/Function	1	0
	Deployment	1	0
	Failure	1	0

Air Bag System Availability/Function
(0) Not equipped/not available
(1) Air bag

Non-functional
(2) Air bag disconnected (specify): _____
(3) Air bag not reinstalled
(9) Unknown

Air Bag System Deployment
(0) Not equipped/not available
(1) Air bag deployed during accident (as a result of impact)
(2) Air bag deployed inadvertently just prior to accident
(3) Air bag deployed, accident sequence undetermined
(4) Nondeployed
(5) Unknown if deployed
(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(9) Unknown

Are There Indications of Air Bag System Failure?
(0) Not equipped/not available
(1) No
(2) Yes (specify): _____
(9) Unknown

AUTOMATIC BELTS

		Left	Right
FIRST	Availability/Function	0	0
	Use	/	/
	Type		
	Proper Use		
	Failure Modes		

Automatic (Passive) Belt System Availability/Function
(0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

Non-functional
(4) Automatic belts destroyed or rendered inoperative
(9) Unknown

Automatic (Passive) Belt System Use
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative)
(3) Automatic belt use unknown
(9) Unknown

Automatic (Passive) Belt System Type
(0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

Proper Use of Automatic (Passive) Belt System
(0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly
(3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____
(8) Other improper use of automatic belt system (specify): _____
(9) Unknown

Automatic (Passive) Belt Failure Modes During Accident
(0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____
(6) Broken retractor
(7) Combination of above (specify):
(8) Other automatic belt failure (specify): _____
(9) Unknown

MANUAL RESTRAINTS

NOTES: Encode the applicable data **for each seat position** in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Ocupant Assessment Form.

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	4	3	4 – Booster
	Evidence of usage	04	00	04 Seat not
	Used in this crash?	04	00	00 secured w/
	Proper Use	1	0	0 lap & shoulder belt
	Failure Modes	1	0	0
SECOND	Availability	4	3	4
	Evidence of usage	04	03	04
	Used in this crash?	00	00	14 (Used for unoccupied child safety
	Proper Use	0	0	1 seat)
	Failure Modes	0	0	1
OTHER	Availability			
	Evidence of usage			
	Used in this crash?			
	Proper Use			
	Failure Modes			

Manual (Active) Belt System Availability
- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

Integral Belt Partially Destroyed
- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify): _____
- (9) Unknown

Manual (Active) Belt System Use
- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify): _____
- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify): _____
- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat - type unknown
- (18) Other belt used with child safety seat (specify): _____
- (99) Unknown if belt used

Proper Use of Manual (Active) Belts
- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly
- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____
- (8) Other improper use of manual belt system (specify): _____
- (9) Unknown

Manual (Active) Belt Failure Modes During Accident
- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____
- (6) Broken retractor
- (7) Combination of above (specify): _____
- (8) Other manual belt failure (specify): _____
- (9) Unknown

CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number	Right Rear	Right Front				
1. Type of Child Safety Seat	3	4				
2. Child Safety Seat Orientation	12	12				
3. Child Safety Seat Harness Usage	11	21				
4. Child Safety Seat Shield Usage	11	21				
5. Child Safety Seat Tether Usage	03	21				
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

1. Type of Child Safety Seat
   - (0) No child safety seat
   - (1) Infant seat
   - (2) Toddler seat
   - (3) Convertible seat
   - (4) Booster seat
   - (7) Other type child safety seat (specify): _____
   - (8) Unknown child safety seat type
   - (9) Unknown if child safety seat used

2. Child Safety Seat Orientation
   - (00) No child safety seat

   Designed for Rear Facing for This Age/Weight
   - (01) Rear facing
   - (02) Forward facing
   - (08) Other orientation (specify): _____
   - (09) Unknown orientation

   Designed for Forward Facing for This Age/Weight
   - (11) Rear facing
   - (12) Forward facing
   - (18) Other orientation (specify): _____
   - (19) Unknown orientation

   Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
   - (21) Rear facing
   - (22) Forward facing
   - (28) Other orientation (specify): _____
   - (29) Unknown orientation
   - (99) Unknown if child safety seat used

3. Child Safety Seat Harness Usage

4. Child Safety Seat Shield Usage

5. Child Safety Seat Tether Usage
   Note: Options Below Are Used for Variables 3-5.
   - (00) No child safety seat

   Not Designed with Harness/Shield/Tether
   - (01) After market harness/shield/tether added, not used
   - (02) After market harness/shield/tether used
   - (03) Child safety seat used, but no after market harness/shield/tether added
   - (09) Unknown if harness/shield/tether added or used

   Designed With Harness/Shield/Tether
   - (11) Harness/shield/tether not used
   - (12) Harness/shield/tether used
   - (19) Unknown if harness/shield/tether used

   Unknown If Designed With Harness/Shield/Tether
   - (21) Harness/shield/tether not used
   - (22) Harness/shield/tether used
   - (29) Unknown if harness/shield/tether used

   - (99) Unknown if child safety seat used

6. Child Safety Seat Make/Model
   (Specify make/model and occupant number)

   Right Rear - Fisher-Price Car Seat (code 225) - Unoccupied

   Right Front - Cosco booster seat not secured with lap & torso belt

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for **each seat position** in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	3-down position	0	3-down position
	Seat Type	06	06	06
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
SECOND	Head Restraint Type/Damage	0	0	0
	Seat Type	03	03	03
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
THIRD	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			

Head Restraint Type/Damage by Occupant at This Occupant Position

(0) No head restraints
(1) Integral — no damage
(2) Integral — damaged during accident
(3) Adjustable — no damage
(4) Adjustable — damaged during accident
(5) Add-on — no damage
(6) Add-on — damaged during accident
(8) Other Specify): _____
(9) Unknown

Seat Type (this Occupant Position)

(00) Occupant not seated or no seat
(01) Bucket
(02) Bucket with folding back
(03) Bench
(04) Bench with separate back cushions
(05) Bench with folding back(s)
(06) Split bench with separate back cushions
(07) Split bench with folding back(s)
(08) Pedestal (i.e., column supported)
(09) Other seat type (specify): _____
(10) Box mounted seat (i.e., van type)
(99) Unknown

Seat Performance (this Occupant Position)

(0) Occupant not seated or no seat
(1) No seat performance failure(s)
(2) Seat adjusters failed
(3) Seat back folding locks or "seat back" failed specify: _____
(4) Seat tracks/anchors failed
(5) Deformed by impact of occupant
(6) Deformed by passenger compartment intrusion (specify): _____
(7) Combination of above (specify): _____
(8) Other (specify): _____
(9) Unknown

Seat Orientation (this Occupant Position)

(0) Occupant not seated or no seat
(1) Forward facing seat
(2) Rear facing seat
(3) Side facing seat (inward)
(4) Side facing seat (outward)
(8) Other (specify): _____
(9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No [✓] Yes [ ]

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection
(1) Complete ejection
(2) Partial ejection
(3) Ejection, Unknown degree
(9) Unknown

Ejection Area
(1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear
(7) Roof
(8) Other area (e.g., back of pickup, etc.) (specify): _____
(9) Unknown

Ejection Medium
(1) Door/hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify): _____
(5) Integral structure
(8) Other medium (specify): _____
(9) Unknown

Medium Status (Immediately Prior to Impact)
(1) Open
(2) Closed
(3) Integral structure
(9) Unknown

ENTRAPMENT No [✓] Yes [ ]

Describe entrapment mechanism: _____

Component(s): _____

(Note in vehicle interior diagram)

BEST AVAILABLE

U.S. Department of Transportation
National Highway Traffic Safety Administration

OCCUPANT ASSESSMENT FORM

Form Approved
O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number — —
2. Case Number - Stratum 94-42
3. Vehicle Number 01
4. Occupant Number 01

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 29
Code actual age at time of accident.
(00) Less than one year old (specify by month): _____
(97) 97 years and older
(99) Unknown

6. Occupant's Sex 2
(1) Male
(2) Female
(9) Unknown

7. Occupant's Height 163
Code actual height to the nearest centimeter.
(999) Unknown

64 inches X 2.54 = 163 centimeters

8. Occupant's Weight 073
Code actual weight to the nearest kilogram.
(999)Unknown

160 pounds X .4536 = 073 kilograms

9. Occupant's Role 1
(1) Driver
(2) Passenger
(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position 11

Front Seat
(11) Left side
(12) Middle
(13) Right side
(14) Other (specify): _____
(15) On or in the lap of another occupant

Second Seat
(21) Left side
(22) Middle
(23) Right side
(24) Other (specify): _____
(25) On or in the lap of another occupant

Third Seat
(31) Left side
(32) Middle
(33) Right side
(34) Other (specify): _____
(35) On or in the lap of another occupant

Fourth Seat
(41) Left side
(42) Middle
(43) Right side
(44) Other (specify): _____
(45) On or in the lap of another occupant

(97) In or on unenclosed area
(98) Other seat (specify): _____
(99) Unknown

11. Occupant's Posture 0
(0) Normal posture

Abnormal posture
(1) Kneeling or standing on seat
(2) Lying on or across seat
(3) Kneeling, standing or sitting in front of seat
(4) Sitting sideways or turned to talk with another occupant or to look out a rear window
(5) Sitting on a console
(6) Lying back in a reclined seat position
(7) Bracing with feet or hands on a surface in front of seat
(8) Other abnormal posture (specify): _____
(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection — 0
    (0) No ejection
    (1) Complete ejection
    (2) Partial ejection
    (3) Ejection, unknown degree
    (9) Unknown

13. Ejection Area — 0
    (0) No ejection
    (1) Windshield
    (2) Left front
    (3) Right front
    (4) Left rear
    (5) Right rear
    (6) Rear
    (7) Roof
    (8) Other area (e.g., back of pickup, etc.) (specify):_____
    (9) Unknown

14. Ejection Medium — 0
    (0) No ejection
    (1) Door/hatch/tailgate
    (2) Nonfixed roof structure
    (3) Fixed glazing
    (4) Nonfixed glazing (specify):
    _____
    (5) Integral structure
    (8) Other medium (specify):
    _____
    (9) Unknown

15. Medium Status (Immediately Prior To Impact) — 0
    (0) No ejection
    (1) Open
    (2) Closed
    (3) Integral structure
    (9) Unknown

16. Entrapment — 0
    (NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
    (0) Not entrapped
    (1) Entrapped
    (9) Unknown

RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability — 4
    (0) None available
    (1) Belt removed/destroyed
    (2) Shoulder belt
    (3) Lap belt
    (4) Lap and shoulder belt
    (5) Belt available—type unknown

    Integral Belt Partially Destroyed
    (6) Shoulder belt (lap belt destroyed/removed)
    (7) Lap belt (shoulder belt destroyed/removed)

    (8) Other belt (specify): _____
    (9) Unknown

18. Manual (Active) Belt System Use — 04
    (00) None used, not available, or belt removed/destroyed
    (01) Inoperative (specify): _____
    (02) Shoulder belt
    (03) Lap belt
    (04) Lap and shoulder belt
    (05) Belt used—type unknown
    (08) Other belt used (specify): _____
    (12) Shoulder belt used with child safety seat
    (13) Lap belt used with child safety seat
    (14) Lap and shoulder belt used with child safety seat
    (15) Belt used with child safety seat—type unknown
    (18) Other belt used with child safety seat (specify): _____
    (99) Unknown if belt used

19. Proper Use of Manual (Active) Belts — 1
    (0) None used or not available
    (1) Belt used properly
    (2) Belt used properly with child safety seat

    Belt Used Improperly
    (3) Shoulder belt worn under arm
    (4) Shoulder belt worn behind back or seat
    (5) Belt worn around more than one person
    (6) Lap belt worn on abdomen
    (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____
    (8) Other improper use of manual belt system (specify): _____
    (9) Unknown

20. Manual (Active) Belt Failure Modes During Accident — 1
    (0) No manual belt used
    (1) No manual belt failure(s)
    (2) Torn webbing (stretched webbing not included)
    (3) Broken buckle or latchplate
    (4) Upper anchorage separated
    (5) Other anchorage separated (specify): _____
    (6) Broken retractor
    (7) Combination of above (specify): _____
    (8) Other manual belt failure (specify): _____
    (9) Unknown

21. Air Bag System Availability/Function — 1
    (0) Not equipped/not available
    (1) Air bag

    Non-functional
    (2) Air bag disconnected (specify): _____
    (3) Air bag not reinstalled
    (9) Unknown

22. Air Bag System Deployment — 1
    (0) Not equipped/not available
    (1) Air bag deployed during accident (as a result of impact)
    (2) Air bag deployed inadvertently just prior to accident
    (3) Air bag deployed, accident sequence undetermined
    (4) Nondeployed
    (5) Unknown if deployed
    (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
    (9) Unknown

23. Are There Indications of Air Bag System Failure? — 1
    (0) Not equipped/not available
    (1) No
    (2) Yes (specify): _____
    (9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use — 4
    (0) None used
    (1) Police did not indicate restraint use
    (2) Shoulder belt
    (3) Lap belt
    (4) Lap and shoulder belt
    (5) Belt used, type not specified
    (6) Child safety seat
    (7) Other or automatic restraint (specify): _____
    (8) Restrained, type unknown
    (9) Police indicated "unknown"

HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant at This Occupant Position: 3
    - (0) No head restraints
    - (1) Integral—no damage
    - (2) Integral—damaged during accident
    - (3) Adjustable—no damage
    - (4) Adjustable—damaged during accident
    - (5) Add-on—no damage
    - (6) Add-on—damaged during accident
    - (8) Other (specify): _____
    - (9) Unknown

26. Seat Type (this Occupant Position): 06
    - (00) Occupant not seated or no seat
    - (01) Bucket
    - (02) Bucket with folding back
    - (03) Bench
    - (04) Bench with separate back cushions
    - (05) Bench with folding back(s)
    - (06) Split bench with separate back cushions
    - (07) Split bench with folding back(s)
    - (08) Pedestal (i.e., column supported)
    - (09) Other seat type (specify): _____
    - (10) Box mounted seat (i.e., van type)
    - (99) Unknown

27. Seat Performance (this Occupant Position): 1
    - (0) Occupant not seated or no seat
    - (1) No seat performance failure(s)
    - (2) Seat adjusters failed
    - (3) Seat back folding locks or "seat back" failed (specify): _____
    - (4) Seat track/anchors failed
    - (5) Deformed by impact of occupant
    - (6) Deformed by passenger compartment intrusion (specify): _____
    - (7) Combination of above (specify): _____
    - (8) Other (specify): _____
    - (9) Unknown

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model ___0 0 0___
(000) No child safety seat
Applicable codes are found in your NASS CDS Data Collection, Coding and Editing
(950) Built-in child safety seat
(997) Other make/model (specify):
_____
(998) Unknown make/model
(999) Unknown if child safety seat used

29. Type of Child Safety Seat ___0___
(0) No child safety seat
(1) Infant seat
(2) Toddler seat
(3) Convertible seat
(4) Booster seat
(7) Other type child safety seat (specify):
_____
(8) Unknown child safety seat type
(9) Unknown if child safety seat used

30. Child Safety Seat Orientation ___0 0___
(00) No child safety seat

Designed for Rear Facing for This Age/Weight
(01) Rear facing
(02) Forward facing
(08) Other orientation (specify):
_____
(09) Unknown orientation

Designed For Forward Facing for This Age/Weight
(11) Rear facing
(12) Forward facing
(18) Other orientation (specify):
_____
(19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
(21) Rear facing
(22) Forward facing
(28) Other orientation (specify):
_____
(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage ___0 0___

32. Child Safety Seat Shield Usage ___0 0___

33. Child Safety Seat Tether Usage ___0 0___

Note: Options below applicable to Variables OA31-OA33.
(00) No child safety seat

Not Designed With Harness/Shield/Tether
(01) After market harness/shield/tether added, not used
(02) After market harness/shield/tether used
(03) Child safety seat used, but no after market harness/shield/tether added
(09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether
(11) Harness/shield/tether not used
(12) Harness/shield/tether used
(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether
(21) Harness/shield/tether not used
(22) Harness/shield/tether used
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES

34. Injury Severity (Police Rating) 3

(0) O - No injury
(1) C - Possible injury
(2) B - Nonincapacitating injury
(3) A - Incapacitating injury
(4) K - Killed
(5) U - Injury, severity unknown
(6) Died prior to accident
(9) Unknown

35. Treatment - Mortality 3
(0) No treatment
(1) Fatal
(2) Fatal - ruled disease (specify):

_____

Nonfatal
(3) Hospitalization
(4) Transported and released
(5) Treatment at scene - nontransported
(6) Treatment later
(8) Treatment - other (specify):

_____
(9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 2
(0) Not treated at a medical facility
(1) Trauma center
(2) Hospital
(3) Medical clinic
(4) Physician's office
(5) Treatment later at medical facility
(8) Other (specify):

_____
(9) Unknown

37. Hospital Stay 06
(00) Not Hospitalized
_____Code the number of days (up through 60) that the occupant stayed in hospital.
(61) 61 days or more
(99) Unknown

38. Working Days Lost 00
_____Code the number of days (up through 60) that the occupant lost from work due to the accident
(00) No working days lost
(61) 61 days or more
(62) Fatally injured
(97) Not working prior to accident
(99) Unknown

STOP - GO TO VARIABLE 44 ON PAGE 7

VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER

39. Time to Death 00
_____Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 +n up through 30 days = 60)
(00) Not fatal
(96) Fatal - ruled disease
(99) Unknown

40. 1st Medically Reported Cause of Death 00

41. 2nd Medically Reported Cause of Death 00

42. 3rd Medically Reported Cause of Death 00
_____Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
(00) Not fatal or no additional causes
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

_____
(97) Other result (includes fatal ruled disease) (specify):

_____
(99) Unknown

43. Number of Recorded Injuries for This Occupant 04
_____Code the actual number of injuries recorded for this occupant.
(00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

AUTOMATIC BELT SYSTEM

44. Automatic (Passive) Belt System Availability/ Function — 0
(0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

Non-functional
(4) Automatic belts destroyed or rendered inoperative
(9) Unknown

45. Automatic (Passive) Belt System Use — 0
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
(3) Automatic belt use unknown
(9) Unknown

46. Automatic (Passive) Belt System Type — 0
(0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

47. Proper Use of Automatic (Passive) Belt System — 0
(0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly
(3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):
(8) Other improper use of automatic belt system (specify):
(9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident — 0
(0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):
(6) Broken retractor
(7) Combination of above (specify):
(8) Other automatic belt failure (specify):
(9) Unknown

49. Seat Orientation (this Occupant Position) — 1
(0) Occupant not seated or no seat
(1) Forward facing seat
(2) Rear facing seat
(3) Side facing seat (inward)
(4) Side facing seat (outward)
(8) Other (specify):
(9) Unknown

Check the Primary Source Used In Determining Belt Use.

[✓] Not equipped/not available/destroyed or rendered inoperative
[✓] Vehicle inspection
[✓] Official injury data
[✓] Driver/occupant interview
[ ] Other (specify):
[ ] Unknown if belt used

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION? NO [ ] YES [ ]

UPDATE CANDIDATE? NO [ ] YES [ ]

STOP - VARIABLES 50 THROUGH 53 ARE COMPLETED BY THE ZONE CENTER

TRAUMA DATA

50. Glasgow Coma Scale (GCS) Score (at Medical Facility) — 15
    (00) Not injured
    (01) Injured - not treated at medical facility
    (02) No GCS Score at medical facility
    (03-15) Code the actual value of the initial GCS Score recorded at medical facility.
    (97) Injured, details unknown
    (99) Unknown if injured

51. Was the Occupant Given Blood? — 1
    (1) No - blood not given
    (2) Yes - blood given
    (specify units):_____
    (9) Unknown if blood given

52. Arterial Blood Gases (ABG) – HCO_3 — 01
    (00) Not injured
    (01) Injured, ABGs not measured or reported
    (02-50) Code the actual value of the HCO_3
    (96) ABGs reported , HCO_3 unknown
    (97) Injured, details unknown
    (99) Unknown if injured

BELT USE DETERMINATION

53. Primary Source of Belt Use Determination — 1
    (0) Not equipped/not available/destroyed or rendered inoperative
    (1) Vehicle inspection
    (2) Official injury data
    (3) Driver/occupant interview
    (8) Other (specify):_____
    (9) Unknown if belt used

BEST AVAILABLE

U.S. Department of Transportation
National Highway Traffic Safety Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: __
2. Case Number - Stratum: 94-42
3. Vehicle Number: 01
4. Occupant Number: 01

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

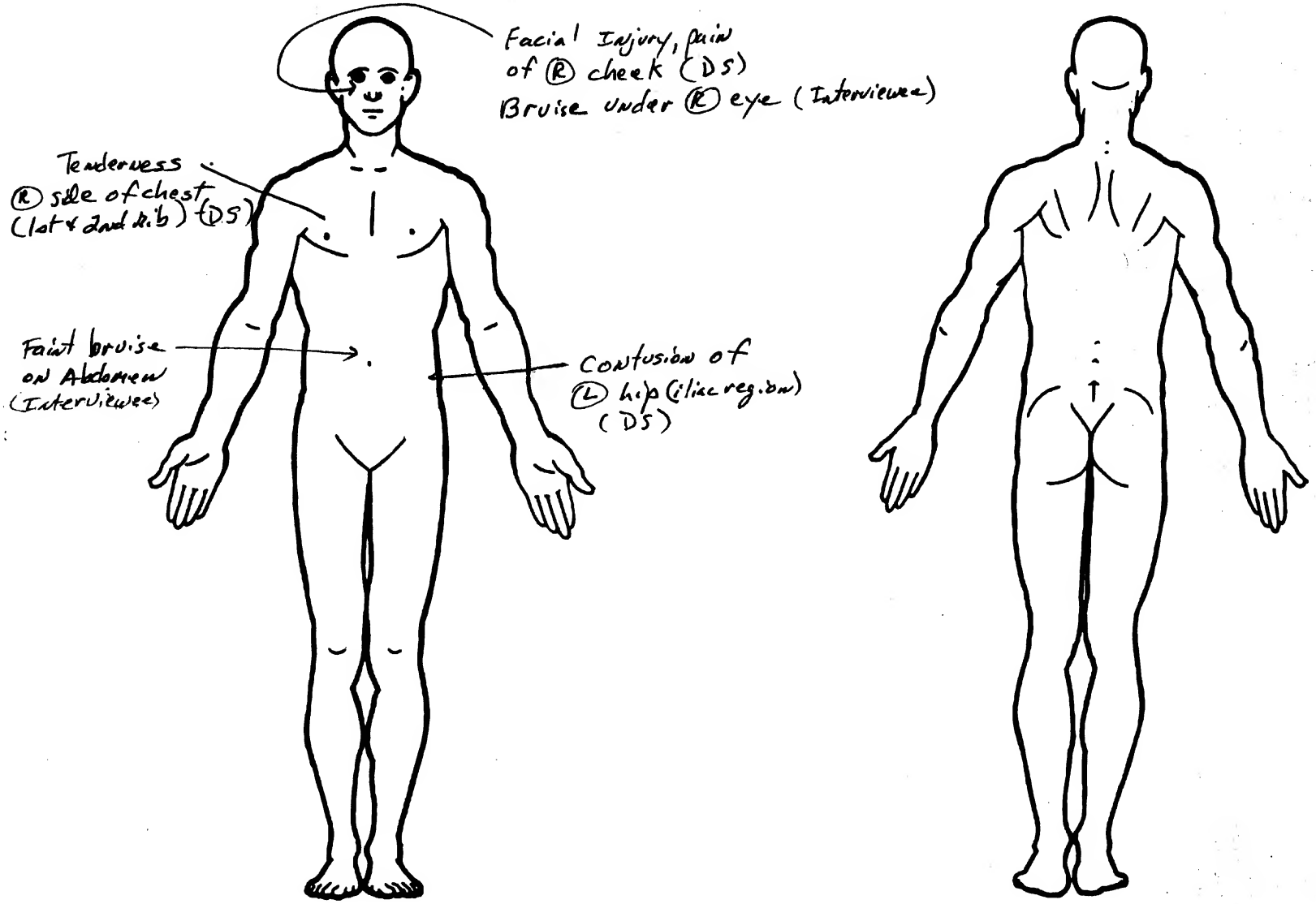
	Source of Injury Data	A.I.S. - 90 Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
fx (L) forearm 1st	5. 2	6. 7	7. 5	8. 28	9. 04	10. 3	11. 2	12. 16	13. 1	14. 1	15. 00
cont. of (R) cheek 2nd	16. 2	17. 2	18. 9	19. 04	20. 02	21. 1	22. 1	23. 45	24. 1	25. 1	26. 00
cont. (L) hip 3rd	27. 2	28. 8	29. 9	30. 04	31. 02	32. 1	33. 2	34. 21	35. 1	36. 1	37. 00
cont. abdomen 4th	38. 7	39. 5	40. 9	41. 04	42. 02	43. 1	44. 0	45. 41	46. 1	47. 1	48. 00
5th	49. __	50. __	51. __	52. __ __	53. __ __	54. __	55. __	56. __ __	57. __	58. __	59. __ __
6th	60. __	61. __	62. __	63. __ __	64. __ __	65. __	66. __	67. __ __	68. __	69. __	70. __ __
7th	71. __	72. __	73. __	74. __ __	75. __ __	76. __	77. __	78. __ __	79. __	80. __	81. __ __
8th	82. __	83. __	84. __	85. __ __	86. __ __	87. __	88. __	89. __ __	90. __	91. __	92. __ __
9th	93. __	94. __	95. __	96. __ __	97. __ __	98. __	99. __	100. __ __	101. __	102. __	103. __ __
10th	104. __	105. __	106. __	107. __ __	108. __ __	109. __	110. __	111. __ __	112. __	113. __	114. __ __

OCCUPANT INJURY DATA

	Source of Injury Data	A.I.S. - 90 Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
11th											
12th											
13th											
14th											
15th											
16th											
17th											
18th											
19th											
20th											
21st											
22nd											
23rd											
24th											
25th											

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



SOURCE OF INJURY DATA

OFFICIAL
(1) Autopsy records with or without hospital/ medical records
(2) Hospital/medical records other than emergency room (e.g., discharge summary)
(3) Emergency room records only (including associated X-rays or other lab reports)
(4) Private physician, walk-in or emergency clinic

UNOFFICIAL
(5) Lay coroner report
(6) E.M.S. personnel
(7) Interviewee
(8) Other source (specify): _____
(9) Police

INJURY SOURCE

FRONT
(01) Windshield
(02) Mirror
(03) Sunvisor
(04) Steering wheel rim
(05) Steering wheel hub/spoke
(06) Steering wheel (combination of codes 04 and 05)
(07) Steering column, transmission selector lever, other attachment
(08) Add on equipment (e.g., CB, tape deck, air conditioner)
(09) Left instrument panel and below
(10) Center instrument panel and below
(11) Right instrument panel and below
(12) Glove compartment door
(13) Knee bolster
(14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
(15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
(16) Driver side air bag compartment cover
(17) Passenger side air bag compartment cover
(18) Windshield reinforced by exterior object (specify): _____
(19) Other front object (specify): _____

LEFT SIDE
(20) Left side interior surface, excluding hardware or armrests
(21) Left side hardware or armrest
(22) Left A (A1/A2)-pillar
(23) Left B-pillar
(24) Other left pillar (specify): _____
(25) Left side window glass or frame
(26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
(27) Other left side object (specify): _____
(28) Left side window sill

RIGHT SIDE
(30) Right side interior surface, excluding hardware or armrests
(31) Right side hardware or armrest
(32) Right A (A1/A2)-pillar
(33) Right B-pillar
(34) Other right pillar (specify): _____
(35) Right side window glass or frame
(36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
(37) Other right side object (specify): _____
(38) Right side window sill

INTERIOR
(40) Seat, back support
(41) Belt restraint webbing/buckle
(42) Belt restraint B-pillar or door frame attachment point
(43) Other restraint system component (specify): _____
(44) Head restraint system
(45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
(46) Other occupants (specify): _____
(47) Interior loose objects
(48) Child safety seat (specify): _____
(49) Other interior object (specify): _____

ROOF
(50) Front header
(51) Rear header
(52) Roof left side rail
(53) Roof right side rail
(54) Roof or convertible top

FLOOR
(56) Floor (including toe pan)
(57) Floor or console mounted transmission lever, including console
(58) Parking brake handle
(59) Foot controls including parking brake

REAR
(60) Backlight (rear window)
(61) Backlight storage rack, door, etc.
(62) Other rear object (specify): _____

EXTERIOR of OCCUPANT'S VEHICLE
(65) Hood
(66) Outside hardware (e.g., outside mirror, antenna)
(67) Other exterior surface or tires (specify): _____
(68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE
(70) Front bumper
(71) Hood edge
(72) Other front of vehicle (specify): _____
(73) Hood
(74) Hood ornament
(75) Windshield, roof rail, A-pillar
(76) Side surface
(77) Side mirrors
(78) Other side protrusions (specify) _____
(79) Rear surface
(80) Undercarriage
(81) Tires and wheels
(82) Other exterior of other motor vehicle (specify): _____
(83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT
(84) Ground
(85) Other vehicle or object (specify) _____
(86) Unknown vehicle or object

NONCONTACT INJURY
(90) Fire in vehicle
(91) Flying glass
(92) Other noncontact injury source (specify): _____
(93) Air bag exhaust gases
(97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

(1) Certain
(2) Probable
(3) Possible
(9) Unknown

DIRECT/INDIRECT INJURY

(1) Direct contact injury
(2) Indirect contact injury
(3) Noncontact injury
(7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION

Body Region

(1) Head
(2) Face
(3) Neck
(4) Thorax
(5) Abdomen
(6) Spine
(7) Upper Extremity
(8) Lower Extremity
(9) Unspecified

Type of Anatomic Structure

(1) Whole Area
(2) Vessels
(3) Nerves
(4) Organs (includes muscles/ ligaments)
(5) Skeletal (includes joints)
(6) Head - LOC
(9) Skin

Specific Anatomic Structure

Whole Area
(02) Skin - Abrasion
(04) Skin - Contusion
(06) Skin - Laceration
(08) Skin - Avulsion
(10) Amputation
(20) Burn
(30) Crush
(40) Degloving
(50) Injury - NFS
(90) Trauma, other than mechanical

Head - LOC
(02) Length of LOC
(04, 06, 08) Level of Consciousness
(10) Concussion

Spine
(02) Cervical
(04) Thoracic
(06) Lumbar

Vessels, Nerves, Organs. Bones, Joints are assigned consecutive two digit numbers beginning with 02

Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

Abbreviated Injury Scale

(1) Minor injury
(2) Moderate injury
(3) Serious injury
(4) Severe injury
(5) Critical injury
(6) Maximum (untreatable)
(7) Injured, unknown severity

Aspect

(1) Right
(2) Left
(3) Bilateral
(4) Central
(5) Anterior
(6) Posterior
(7) Superior
(8) Inferior
(9) Unknown
(0) Whole region

OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

___ No

✓ Yes

Blood Alcohol Level (mg/dl)

BAL = /

Glasgow Coma Scale Score

GCSS = 15

Units of Blood Given

Units = /

Arterial Blood Gases

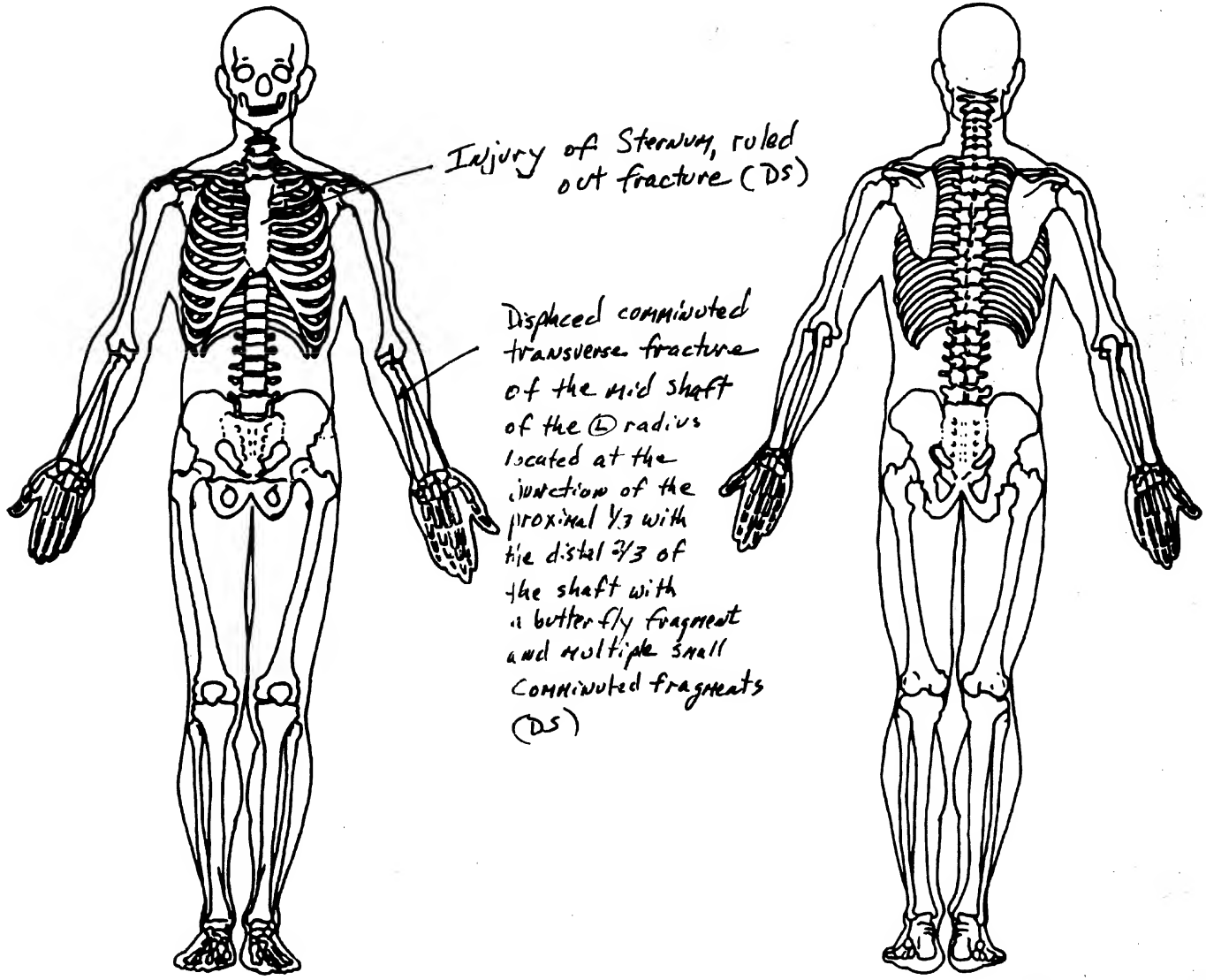
pH = __.__

PO_2 = ____

PCO_2 ____

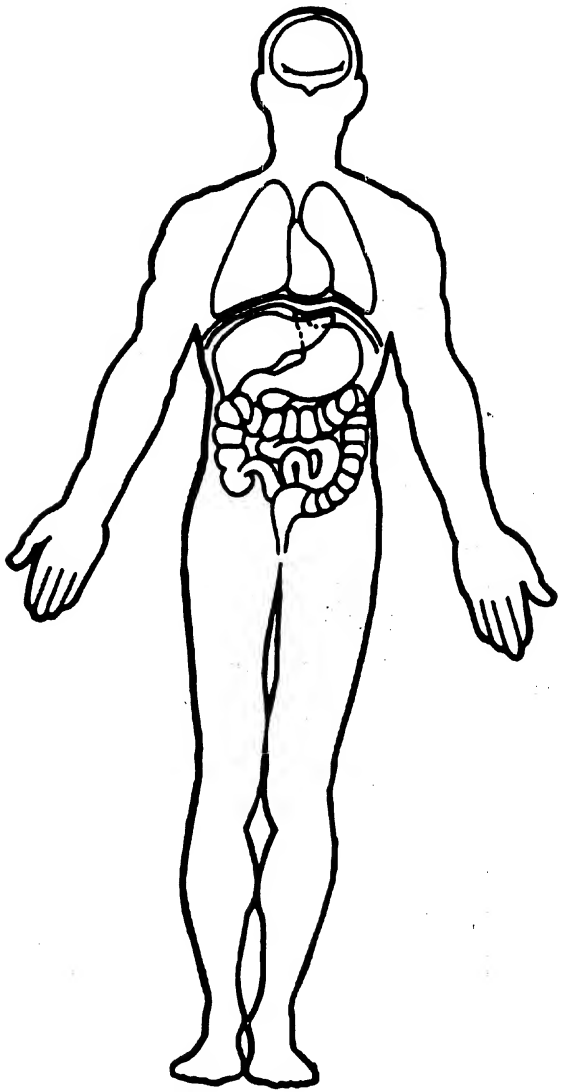
HCO_3 ____

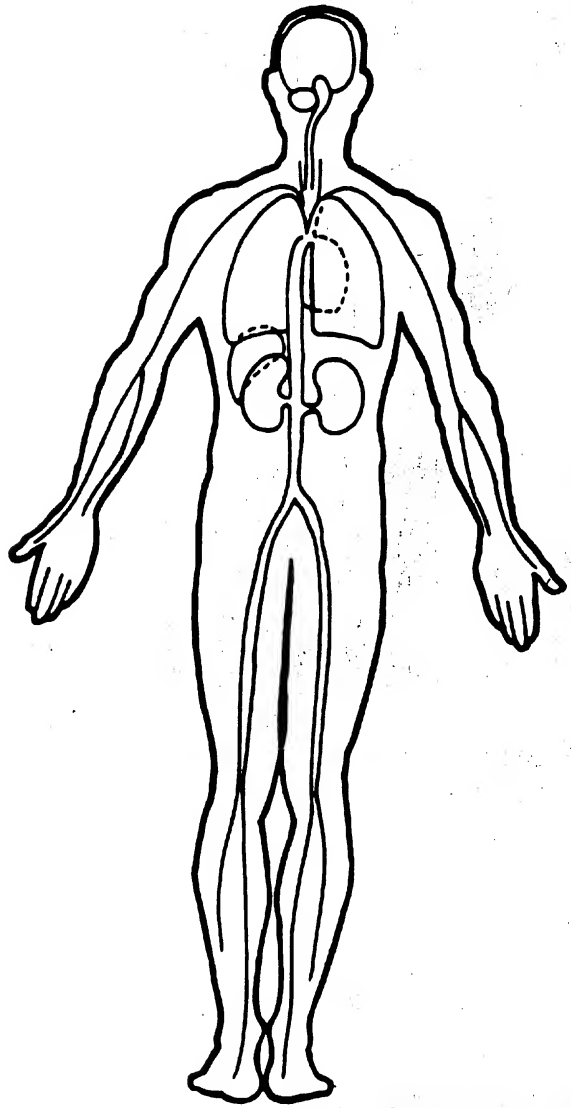
Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA — INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





U.S. Department of Transportation

National Highway Traffic Safety Administration

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: —
2. Case Number - Stratum: 94-42
3. Vehicle Number: 02

VEHICLE IDENTIFICATION

4. Vehicle Model Year: 85
   Code the last two digits of the model year
   (99) Unknown

5. Vehicle Make (specify): 12
   Ford
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (99) Unknown

6. Vehicle Model (specify): 015
   Tempo GL
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (999) Unknown

7. Body Type: 04
   Note: Applicable codes may be found on the back of this page.

8. Vehicle Identification Number

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2	F	A	B	P	2	2	X	2	F	B	[redacted]					

   Left justify; Slash zeros and letter Z (Ø and Ƶ)
   No VIN—Code all zeros
   Unknown—Code all nines

OFFICIAL RECORDS

9. Police Reported Vehicle Disposition: 1
   (0) Not towed due to vehicle damage
   (1) Towed due to vehicle damage
   (9) Unknown

10. Police Reported Travel Speed: 999
    Code to the nearest kph (NOTE: 000 means less than 0.5 kph)
    (160) 159.5 kph and above
    (999) Unknown

    ___ mph X 1.6093 = ___ kph

11. Police Reported Alcohol Presence: 0
    (0) No alcohol present
    (1) Yes (alcohol present)
    (7) Not reported
    (8) No driver present
    (9) Unknown

    Note: See variables 37 through 55 (Page 4) for information on Other Drugs

12. Alcohol Test Result For Driver: 96
    Code actual value (decimal implied before first digit—0.xx)
    (95) Test refused
    (96) None given
    (97) AC test performed, results unknown
    (98) No driver present
    (99) Unknown

    Source: _____

ACCIDENT RELATED

13. Speed Limit: 048
    (000) No statutory limit
    Code posted or statutory speed limit in kph
    (999) Unknown

    ___ mph X 1.6093 = ___ kph

14. Attempted Avoidance Maneuver: 99
    (01) No avoidance actions
    (02) Braking (no lockup)
    (03) Braking (lockup)
    (04) Braking (lockup unknown)
    (05) Releasing brakes
    (06) Steering left
    (07) Steering right
    (08) Braking and steering left
    (09) Braking and steering right
    (10) Accelerating
    (11) Accelerating and steering left
    (12) Accelerating and steering right
    (97) No driver present
    (98) Other action (specify): _____
    (99) Unknown

15. Accident Type: 83
    Applicable codes may be found on the back of page two of this field form
    (00) No impact
    Code the number of the diagram that best describes the accident circumstance
    (98) Other accident type (specify): _____
    (99) Unknown

****** SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 ******

OCCUPANT RELATED

16. Driver Presence in Vehicle — 1
(0) Driver not present
(1) Driver present
(9) Unknown

17. Number of Occupants This Vehicle — 0 2
(00-96) Code actual number of occupants for this vehicle
(97) 97 or more
(99) Unknown

18. Number of Occupant Forms Submitted — 0 2

VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight — 1,110
_____Code weight to nearest 10 kilograms.
(045) Less than 450 kilograms
(610) 6,100 kilograms or more
(999) Unknown

2,443 lbs X .4536 = 1,108 kgs

Source: _____

20. Vehicle Cargo Weight — 0,000
_____Code weight to nearest 10 kilograms.
(000) Less than 5 kilograms
(450) 4,500 kilograms or more
(999) Unknown

___,___ lbs X .4536 = ___,___ kgs

RECONSTRUCTION DATA

21. Towed Trailing Unit — 0
(0) No towed unit
(1) Yes—towed trailing unit
(9) Unknown

22. Documentation of Trajectory Data for This Vehicle — 0
(0) No
(1) Yes

23. Post Collision Condition of Tree or Pole (For Highest Delta V) — 0
(0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify): _____
(9) Unknown

24. Rollover — 0
(0) No rollover (no overturning)

Rollover (primarily about the longitudinal axis)
(1) Rollover, 1 quarter turn only
(2) Rollover, 2 quarter turns
(3) Rollover, 3 quarter turns
(4) Rollover, 4 or more quarter turns (specify): _____
(5) Rollover--end-over-end (i.e., primarily about the lateral axis)
(9) Rollover (overturn), details unknown

OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this Vehicle) — 0

26. Rear Override/Underride (this Vehicle) — 0

(0) No override/underride, or not an end-to-end impact

Override (see specific CDC)
(1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify): _____

Underride (see specific CDC)
(4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify): _____
(7) Medium/heavy truck or bus override
(9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

27. Heading Angle For This Vehicle — 0 0 0

28. Heading Angle For Other Vehicle — 2 4 7

29. Basis for Total Delta V (highest) 2

Delta V Calculated
(1) CRASH program—damage only routine
(2) CRASH program—damage and trajectory routine
(3) Missing vehicle algorithm

Delta V Not Calculated
(4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
(5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
(6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

COMPUTER GENERATED DELTA V

Highest

30. Total Delta V 019

19 Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: 000 means less than 0.5 kph)
(160) 159.5 kph and above
(999) Unknown

31. Longitudinal Component of Delta V +018

-18 Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: _000 means greater than -0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(_999) Unknown

Highest

32. Lateral Component of Delta V +006

-6 Nearest kph (highest)

_____ Nearest kph (secondary)

(NOTE: _000 means greater than -0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(_999) Unknown

33. Energy Absorption 35,900

35,915 Nearest 100 joules (highest)

_____ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)
(9997) 999,650 joules or more
(9999) Unknown

34. Confidence In Reconstruction Program Results (For Highest Delta V) 1
(0) No reconstruction
(1) Collision fits model — results appear reasonable
(2) Collision fits model — results appear high
(3) Collision fits model — results appear low
(4) Borderline reconstruction — results appear reasonable

35. Type of Vehicle Inspection 1
(0) No inspection
(1) Complete inspection
(2) Partial inspection (specify):
_____

36. Is this an AOPS Vehicle? 0
(0) No
(1) Yes - researcher determined
(2) VIN determined air bag system
(3) VIN determined automatic (passive) belts
(4) VIN determined air bag and automatic (passive) belts

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [ ] NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO

37. Police Reported Other Drug Presence 0
(0) No other drug(s) present
(1) Yes [other drug(s) present]
(7) Not reported
(8) No driver present
(9) Unknown

38. Police Reported Drug Evaluation Classification (DEC) Test For Driver 0
(0) No DEC process available or given
(1) DEC process given, results known
(2) DEC process given, results unknown
(3) DEC process available, unknown if given
(8) No driver present

39. Other Drug Specimen Test Type For Driver 0
(0) No specimen test given
(1) Blood test
(2) Urine test
(3) Other specimen tests (specify): _____
(7) Unspecified specimen test
(8) No driver present
(9) Unknown if specimen test given

DRUG EVALUATION CLASSIFICATION
OTHER DRUGS TEST RESULTS FOR DRIVER

	DEC Test Results	Specimen Test Results
Narcotic Drug	40. 0	41. 0
Depressant Drug	42. 0	43. 0
Stimulant Drug	44. 0	45. 0
Hallucinogen Drug	46. 0	47. 0
Cannabinoid Drug	48. 0	49. 0
Phencyclidine (PCP)	50. 0	51. 0
Inhalant Drug	52. 0	53. 0
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. 0	55. 0

Codes For DEC Test Results

(0) No DEC test given
(1) Passed DEC test
(2) Failed DEC test
(3) DEC test given—results unknown
(8) No driver present
(9) Unknown if DEC test given

Codes for Specimen Test Results

(0) No specimen test given
(1) Drug not found in specimen
(2) Drug found in specimen
(7) Specimen test given, results unknown or not obtained
(8) No driver present
(9) Unknown if specimen test given

OTHER DATA

56. Driver's Zip Code [redacted]

(00000) Driver not present
(00001) Driver not a resident of U.S. or territories
_____ Code actual 5-digit zip code
(99999) Unknown

57. Driver's Race/Ethnic Origin ____
(0) Driver not present
(1) White (non-Hispanic)
(2) Black (non-Hispanic)
(3) White (Hispanic)
(4) Black (Hispanic)
(5) American Indian, Eskimo or Aleut
(6) Asian or Pacific Islander
(8) Other (specify):
_____
(9) Unknown

58. Vehicle Special Use (This Trip) 0
(0) No special use
(1) Taxi
(2) Vehicle used as school bus
(3) Vehicle used as other bus
(4) Military
(5) Police
(6) Ambulance
(7) Fire truck or car
(8) Other (specify): _____
(9) Unknown

ROLLOVER DATA

If GV07 (Body Type) ≠ 1-49, leave GV59-GV63 blank.
If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.
If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type 0
(0) No rollover
(1) Trip-over
(2) Flip-over
(3) Turn-over
(4) Climb-over
(5) Fall-over
(6) Bounce-over
(7) Collision with another vehicle
(8) Other rollover initiation type specify):
_____
(9) Unknown rollover initiation type

60. Location of Rollover Initiation 0
(0) No rollover
(1) On roadway
(2) On shoulder—paved
(3) On shoulder—unpaved
(4) On roadside or divided trafficway median
(9) Unknown

61. Rollover Initiation Object Contacted 00

62. Location on Vehicle Where Initial Principal Tripping Force Is Applied 0
(0) No rollover
(1) Wheels/tires
(2) Side plane
(3) End plane
(4) Undercarriage
(5) Other location on vehicle (specify):
_____
(8) Non-contact rollover forces (specify):
_____
(9) Unknown

63. Direction of Initial Roll 0
(0) No rollover
(1) Roll right - primarily about the longitudinal axis
(2) Roll left - primarily about the longitudinal axis
(5) End-over-end (i.e., primarily about the lateral axis)
(9) Unknown roll direction

PRECRASH DATA

64. Pre-Event Movement (Prior to Recognition of Critical Event) 01
(01) Going straight
(02) Slowing or stopping in traffic lane
(03) Starting in traffic lane
(04) Stopped in traffic lane
(05) Passing or overtaking another vehicle
(06) Disabled or parked in travel lane
(07) Leaving a parking position
(08) Entering a parking position
(09) Turning right
(10) Turning left
(11) Making a U-turn
(12) Backing up (other than for parking position)
(13) Negotiating a curve
(14) Changing lanes
(15) Merging
(16) Successful avoidance maneuver to a previous critical event
(97) Other (specify):
_____
(98) No driver present
(99) Unknown

PRECRASH DATA (Continued)

65. Critical Precrash Event 12

This Vehicle Loss of Control Due To:
(01) Blow out or flat tire
(02) Stalled engine
(03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
(04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
(05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
(06) Traveling too fast for conditions
(08) Other cause of control loss (specify): _____
(09) Unknown cause of control loss

This Vehicle Traveling
(10) Over the lane line on left side of travel lane
(11) Over the lane line on right side of travel lane
(12) Off the edge of the road on the left side
(13) Off the edge of the road on the right side
(14) End departure
(15) Turning left at intersection
(16) Turning right at intersection
(17) Crossing over (passing through) intersection
(19) Unknown travel direction

Other Motor Vehicle In Lane
(50) Stopped
(51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
(52) Traveling in same direction with higher speed
(53) Traveling in opposite direction
(54) In crossover
(55) Backing
(59) Unknown travel direction of other motor vehicle in lane

Other Motor Vehicle Encroaching Into Lane
(60) From adjacent lane (same direction)—over left lane line
(61) From adjacent lane (same direction)—over right lane line
(62) From opposite direction—over left lane line
(63) From opposite direction—over right lane line
(64) From parking lane
(65) From crossing street, turning into same direction
(66) From crossing street, across path
(67) From crossing street, turning into opposite direction
(68) From crossing street, intended path not known
(70) From driveway, turning into same direction
(71) From driveway, across path
(72) From driveway, turning into opposite direction
(73) From driveway, intended path not known
(74) From entrance to limited access highway
(78) Encroachment by other vehicle—details unknown

Pedestrian or Pedalcyclist, or Other Nonmotorist
(80) Pedestrian in roadway
(81) Pedestrian approaching roadway
(82) Pedestrian—unknown location
(83) Pedalcyclist or other nonmotorist in roadway (specify): _____
(84) Pedalcyclist or other nonmotorist approaching roadway (specify): _____
(85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

Object or Animal
(87) Animal in roadway
(88) Animal approaching roadway
(89) Animal—unknown location
(90) Object in roadway
(91) Object approaching roadway
(92) Object—unknown location

(98) Other critical precrash event (specify): _____
(99) Unknown

For Corrective Actions Attempted see variable GV14 (Attemped Avoidance Manuever)

66. Precrash Stability After Avoidance Maneuver 9
(0) No avoidance maneuver
(1) Tracking
(2) Skidding longitudinally—rotation less than 30 degrees
(3) Skidding laterally—clockwise rotation
(4) Skidding laterally—counterclockwise rotation
(7) Other vehicle loss-of-control (specify): _____
(8) No driver present
(9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action) 9
(0) No avoidance maneuver
(1) Vehicle stayed in travel lane where avcidance maneuver was initiated
(2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
(3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
(4) Vehicle departed roadway
(5) Avoidance maneuver initiated off roadway
(8) No driver present
(9) Directional consequences unknown

***** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35=0), *****
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

***** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE *****
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

U.S. Department of Transportation

National Highway Traffic Safety Administration

BEST AVAILABLE

EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: ____
2. Case Number - Stratum: 94-42
3. Vehicle Number: 02

VEHICLE IDENTIFICATION

VIN 2FABP22X2FB (Serial # omitted) Model Year 85

Vehicle Make (specify): Ford Vehicle Model (specify): Tempo GL

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L
1	20.6 cm (8.1") (R) of ℄	Entire frontal plane
2	154.9 cm (61.0") forward of RR Axle	Same as direct

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure and document on the vehicle diagram the location of maximum crush.

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

Specific Impact Number	Plane of Impact C-Measurements	Direct Damage Width (CDC)	Direct Damage Max Crush	Field L	C_1	C_2	C_3	C_4	C_5	C_6	±D
1	Bumper	87.6 cm (34.5")	33.0 cm (13.0")	132.1 cm (52.0")	33.0 cm (13.0")	24.1 cm (9.5")	18.3 cm (7.2")	15.2 cm (6.0")	11.9 cm (4.7")	11.7 cm (4.6")	⊖ 23.2 cm (- 9.2")
	Free space		5.1 cm (2.0")		5.1 cm (2.0")	2.5 cm (1.0")	0.8 cm (0.3")	0.8 cm (0.3")	2.5 cm (1.0")	5.1 cm (2.0")	
	Resultant		27.9 cm (11.0")		27.9 cm (11.0")	21.6 cm (8.5")	17.5 cm (6.9")	14.4 cm (5.7")	9.4 cm (3.7")	6.6 cm (2.6")	
2	Mid door	55.9 cm (22.0")	1.3 cm (0.5")	55.9 cm (22.0")	0	0.5 cm (0.2")	1.3 cm (0.5")	1.3 cm (0.5")	0.3 cm (0.1")	0	+ 56.1 cm (+ 22.0")

HS Form 435A (Rev. 1/94)

VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE

	a. Rotation physically restricted	b. Tire deflated
RF	2	2
LF	1	2
RR	2	2
LR	2	2

(1) Yes (2) No (8) NA (9) Unk.

TYPE OF TRANSMISSION

☐ Manual ☑ Automatic

ORIGINAL SPECIFICATIONS

Wheelbase	(99.9") 253.7	cm
Overall Length	(176.2") 447.5	cm
Maximum Width	(66.2") 168.1	cm
Curb Weight	(2443 lbs) 1108	kg
Average Track	(56.2") 142.7	cm
Front Overhang	(33.8") 85.9	cm
Rear Overhang	(42.5") 108.0	cm
Undeformed End Width	(56.0") 142.2	cm
Engine Size: cyl./displ.	2.3	L

WHEEL STEER ANGLES

(For locked front wheels or displaced rear axles only)

RF ± 0 0 °
LF ± 0 0 °
RR ± / / °
LR ± / / °

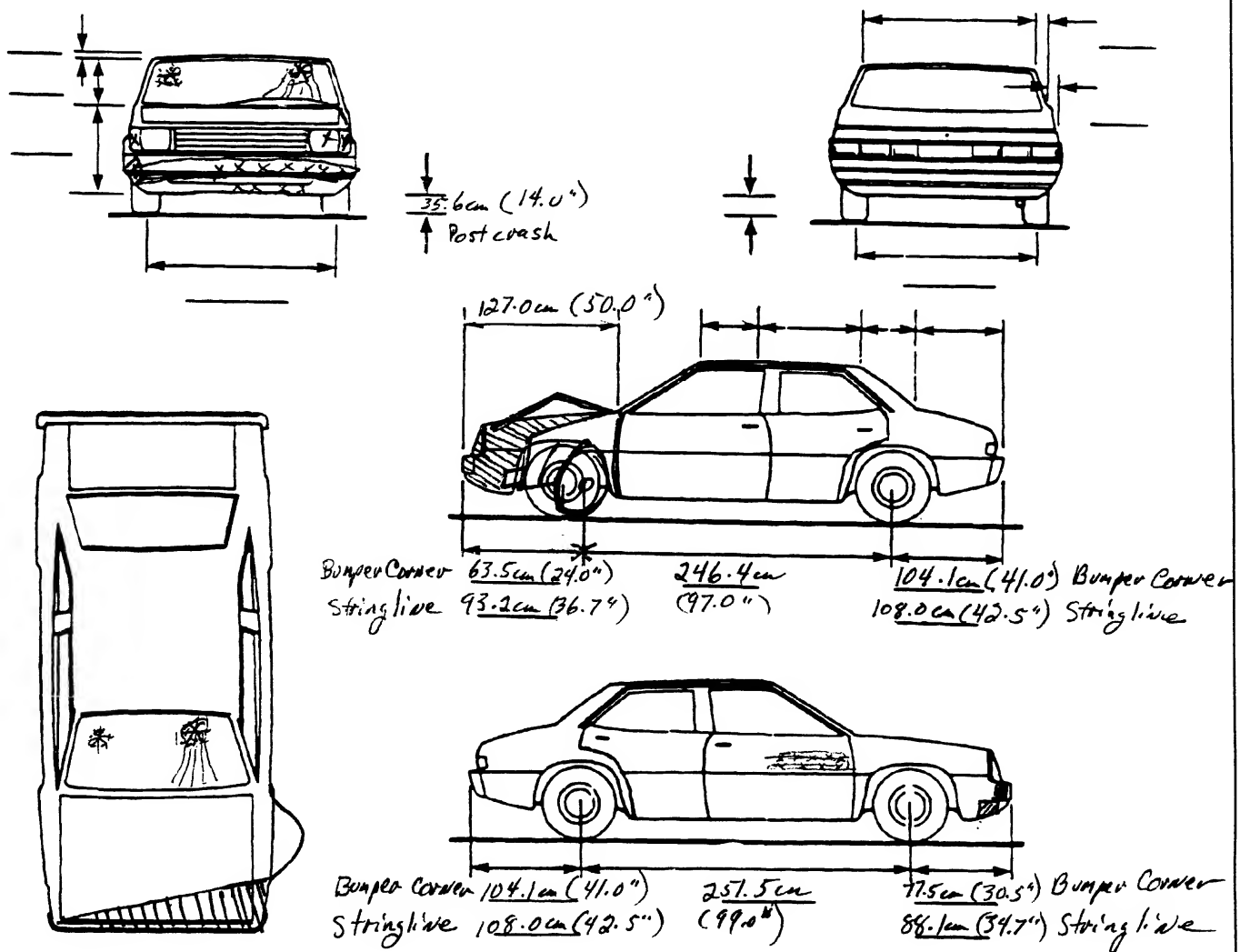
Within ± 5 degrees

DRIVE WHEELS

☑ FWD ☐ RWD ☐ 4WD

Approximate Cargo Weight None kg

MEASUREMENTS IN CENTIMETERS



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

(01-30) — Vehicle Number

Noncollision
- (31) Overturn — rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify): _____
- (35) Noncollision injury
- (38) Other noncollision (specify): _____
- (39) Noncollision — details unknown

Collision With Fixed Object
- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment
- (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post
- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)
- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail) (specify): _____
- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): _____
- (69) Unknown fixed object

Collision with Nonfixed Object
- (71) Motor vehicle not in-transport
- (72) Pedestrian
- (73) Cyclist or cycle
- (74) Other nonmotorist or conveyance
- (75) Vehicle occupant
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (79) Object fell from vehicle in-transport
- (88) Other nonfixed object (specify): _____
- (89) Unknown nonfixed object
- (98) Other event (specify): _____
- (99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force (degrees)	Incremental Value of Shift	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
01	01	+20	00	F	Y	E	W	02
02	01	+90	00	R	P	M	W	01

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. 01	5. 01	6. 01	7. F	8. Y	9. E	10. W	11. 02

Second Highest Delta "V"

12. 02	13. 01	14. 03	15. R	16. P	17. M	18. W	19. 01

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. L	21. C_1	C_2	C_3	C_4	C_5	C_6	22. ±D
142	028 (11.0")	022 (8.5")	018 (6.9")	014 (5.7")	009 (3.7")	007 (2.6")	+0023 (⊖9.2")

Second Highest Delta "V"

23. L	24. C_1	C_2	C_3	C_4	C_5	C_6	25. ±D
056	000	001 (0.2")	001 (0.5")	001 (0.5")	000 (0.1")	000	⊕-056 (⊖22.0")

26. Are CDCs Documented but Not Coded on The Automated File? 0
(0) No
(1) Yes

27. Researcher's Assessment of Vehicle Disposition 1
(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

28. Original Wheelbase 254
_____ Code to the nearest centimeter
(999) Unknown

_____ . __ inches X 2.54 = _____ centimeters

29. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle? 0
    (0) No post manufacturer modifications
    (1) Yes - post manufacturer modifications (specify): _____
    _____
    _____
    (Include photograph of CERTIFICATION PLACARD in case report)
    (9) Unknown if vehicle is modified

30. Fire Occurrence 0
    (0) No fire

    Yes, fire occurred
    (1) Minor
    (2) Major
    (9) Unknown

31. Origin of Fire 0
    (0) No fire
    (1) Vehicle exterior (front, side, back, top)
    (2) Exhaust system
    (3) Fuel tank (and other fuel retention system parts)
    (4) Engine compartment
    (5) Cargo/trunk compartment
    (6) Instrument panel
    (7) Passenger compartment area
    (8) Other location (specify):
    _____
    (9) Unknown

32. Type of Fuel Tank-1 1

33. Type of Fuel Tank-2 0
    (0) No fuel tank (electrical vehicle)
    (1) Metallic
    (2) Non-metallic
    (9) Unknown

34. Fuel Tank-1 Location 4

35. Fuel Tank-2 Location 0
    (0) No fuel tank
    (1) Aft of center of the rear wheels (rear axle) centered
    (2) Aft of center of the rear wheels (rear axle) left side
    (3) Aft of center of the rear wheels (rear axle) right side
    (4) Forward of center of the rear wheels (rear axle) centered
    (5) Forward of center of the rear wheels (rear axle) left side
    (6) Forward of center of the rear wheels (rear axle) right side
    (7) Over center of the rear wheels (rear axle)
    (8) Other (specify):
    _____
    (9) Unknown

36. Fuel Tank-1 Filler Cap Location 3

37. Fuel Tank-2 Filler Cap Location 0
    (0) No fuel tank
    (1) On back plane
    (2) Aft of center of the rear wheels (rear axle) on left side plane
    (3) Aft of center of the rear wheels (rear axle) on right side plane
    (4) Forward of center of the rear wheels (rear axle) on left side plane
    (5) Forward of center of the rear wheels (rear axle) on right side plane
    (6) Over the center of the rear wheels (rear axle) on left side plane
    (7) Over the center of the rear wheels (rear axle) on right side plane
    (8) Other (specify):_____
    (9) Unknown

38. Fuel Tank-1 Damage 1

39. Fuel Tank-2 Damage 0
    (0) No fuel tank
    (1) No damage to fuel tank
    (2) Deformed, no seam failure
    (3) Deformed, with a seam failure
    (4) Punctured
    (5) Lacerated (ripped)
    (6) Abraded (scraped)
    (7) Filler neck separation from the fuel tank
    (8) Other damage (specify):
    _____
    (9) Unknown

40. Location of Fuel System-1 Leakage 1

41. Location of Fuel System-2 Leakage 0
(0) No fuel tank
(1) No fuel leakage

Primary Area Of Leakage
(2) Tank
(3) Filler neck
(4) Cap
(5) Lines/pump/filter
(6) Vent/emission recovery
(8) Other (specify):

_____

(9) Unknown

42. Fuel Type-1 01

43. Fuel Type-2 00

Single Fuel Type
(00) No fuel tank
(01) Gasoline
(02) Diesel
(03) CNG (Compressed Natural Gas)
(04) LPG (Liquid Petroleum Gas) also known as Propane
(05) LNG (Liquid Natural Gas)
(06) Methanol (M100 or M85)
(07) Ethanol (E100 or E85)
(08) Other (Hydrogen or others) (specify):

_____

Electric Powered or Electric/Solar Powered Vehicles
(10) Lead Acid Battery
(11) Nickel-Iron Battery
(12) Nickel-Cadmium Battery
(13) Sodium Metal Chloride Battery
(14) Sodium Sulfur Battery
(18) Other (Specify):_____

(98) Other Hybrid (specify):

_____

(99) Unknown fuel type

44. Is This Vehicle Equipped With More Than Two Fuel Tanks? 0
(0) No (one or two tanks only)

Yes - More Than Two Tanks
(1) Yes -- no damage to any tank or filler cap and no fuel system leakage
(2) Yes -- no damage to any tank or filler cap but there is fuel system leakage (specify leakage location):

_____

(3) Yes -- damage to an additional tank or filler cap and there is fuel system leakage (specify the following):
Type of tank _____
Tank location _____
Filler cap location _____
Tank damage _____
Location of leakage _____
Type of fuel _____
(9) Unknown if more than two tanks

COMMENTS

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED AND WAS NOT AN AOPS *** (I.E., GV09=0 OR 9 AND GV36=0), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.

U.S. Department of Transportation
National Highway Traffic Safety Administration

INTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number ___
2. Case Number - Stratum 94-42
3. Vehicle Number 02

INTEGRITY

4. Passenger Compartment Integrity 00
(00) No integrity loss

Yes, Integrity Was Lost Through
(01) Windshield
(02) Door (side)
(03) Door/hatch (back door)
(04) Roof
(05) Roof glass
(06) Side window
(07) Rear window (backlight)
(08) Roof and roof glass
(09) Windshield and door (side)
(10) Windshield and roof
(11) Side and rear window (side window and backlight)
(12) Windshield and side window
(13) Door and side window
(98) Other combination of above (specify): _____
(99) Unknown

Door, Tailgate or Hatch Opening

5. LF / 6. RF / 7. LR / 8. RR / 9. TG/H 0

(0) No door/gate/hatch
(1) Door/gate/hatch remained closed and operational
(2) Door/gate/hatch came open during collision
(3) Door/gate/hatch jammed shut
(8) Other (specify): _____
(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then code Ø

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision
(1) Door operational (no damage)
(2) Latch/striker failure due to damage
(3) Hinge failure due to damage
(4) Door structure failure due to damage
(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage
(6) Latch/striker and hinge failure due to damage
(8) Other failure (specify): _____
(9) Unknown

GLAZING

Glazing Damage from Impact Forces

15. WS 0 16. LF 0 17. RF 0 18. LR 0 19. RR 0
20. BL 0 21. Roof 8 22. Other 0

(0) No glazing damage from impact forces
(2) Glazing in place and cracked from impact forces
(3) Glazing in place and holed from impact forces
(4) Glazing out-of-place (cracked or not) and not holed from impact forces
(5) Glazing out-of-place and holed from impact forces
(6) Glazing disintegrated from impact forces
(7) Glazing removed prior to accident
(8) No glazing
(9) Unknown if damaged

Glazing Damage from Occupant Contact

23. WS 2 24. LF 0 25. RF 0 26. LR 0 27. RR 0
28. BL 0 29. Roof 0 30. Other 0

(0) No occupant contact to glazing or no glazing
(1) Glazing contacted by occupant but no glazing damage
(2) Glazing in place and cracked by occupant contact
(3) Glazing in place and holed by occupant contact
(4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
(5) Glazing out-of-place by occupant contact and holed by occupant contact
(6) Glazing disintegrated by occupant contact
(9) Unknown if contacted by occupant

If No Glazing Damage *And* No Occupant Contact or No Glazing, Then Code IV31 Through IV46 As Ø

Type of Window/Windshield Glazing

31. WS / 32. LF 0 33. RF 0 34. LR 0 35. RR 0
36. BL 0 37. Roof 0 38. Other 0

(0) No glazing contact and no damage, or no glazing
(1) AS-1 — Laminated
(2) AS-2 — Tempered
(3) AS-3 — Tempered-tinted
(4) AS-14 — Glass/Plastic
(8) Other (specify): _____
(9) Unknown

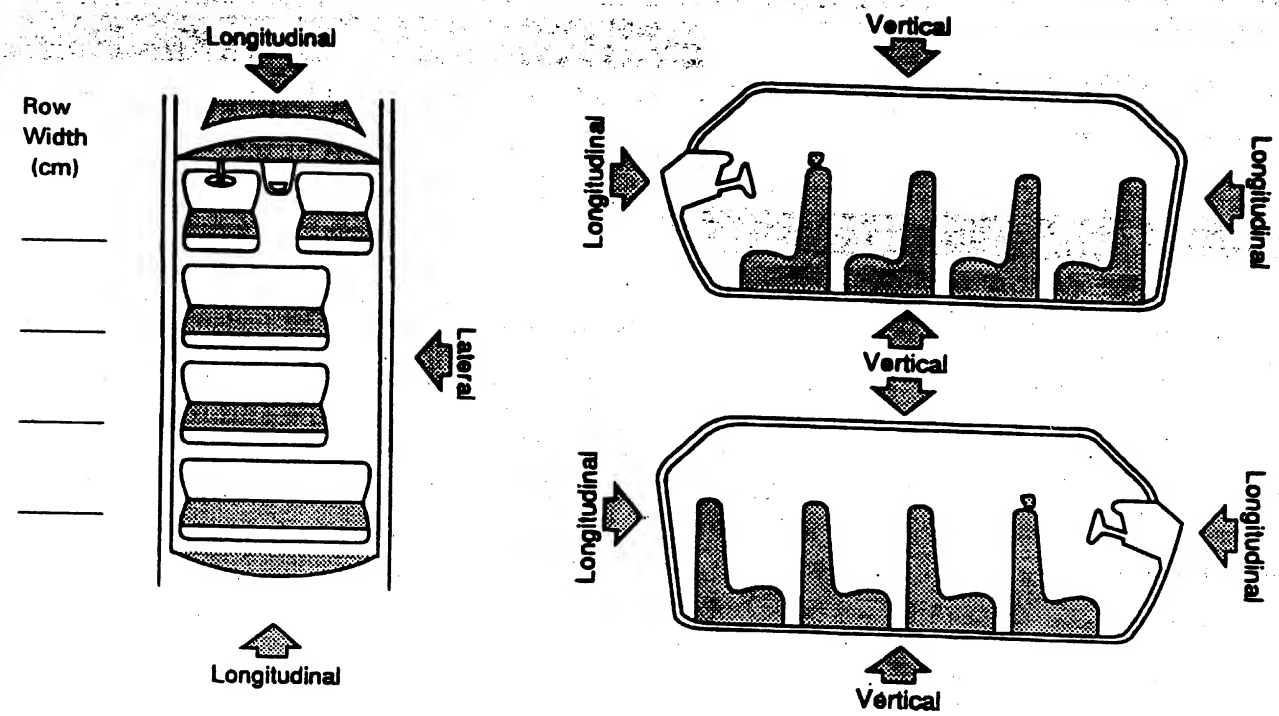
Window Precrash Glazing Status

39. WS / 40. LF 0 41. RF 0 42. LR 0 43. RR 0
44. BL 0 45. Roof 0 46. Other 0

(0) No glazing contact and no damage, or no glazing
(1) Fixed
(2) Closed
(3) Partially opened
(4) Fully opened
(9) Unknown

INTRUSION WORKSHEET

Note: Sketch intruded areas



LOCATION OF INTRUSION	INTRUDED COMPONENT	(All Measurements Are In Centimeters) COMPARISON VALUE	—	INTRUDED VALUE	=	INTRUSION	DOMINANT CRUSH DIRECTION
11	(L) Instrument Panel		—		=	2.5 cm (1.0")	Long.
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		
			—		=		

Document no more than the 15 most severe intrusions

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
	No Intrusion			
1st	47.___ ___	48.___ ___	49.___	50.___
2nd	51.___ ___	52.___ ___	53.___	54.___
3rd	55.___ ___	56.___ ___	57.___	58.___
4th	59.___ ___	60.___ ___	61.___	62.___
5th	63.___ ___	64.___ ___	65.___	66.___
6th	67.___ ___	68.___ ___	69.___	70.___
7th	71.___ ___	72.___ ___	73.___	74.___
8th	75.___ ___	76.___ ___	77.___	78.___
9th	79.___ ___	80.___ ___	81.___	82.___
10th	83.___ ___	84.___ ___	85.___	86.___

LOCATION OF INTRUSION

Front Seat
- (11) Left
- (12) Middle
- (13) Right

Second Seat
- (21) Left
- (22) Middle
- (23) Right

Third Seat
- (31) Left
- (32) Middle
- (33) Right

Fourth Seat
- (41) Left
- (42) Middle
- (43) Right

- (97) Catastrophic
- (98) Other enclosed area (specify) _____
- (99) Unknown

INTRUDING COMPONENT

Interior Components
- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel (side)
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan (includes sill)
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back door/panel (e.g., tailgate)
- (26) Other interior component (specify): _____
- (27) Side panel - forward of the A (A2)-pillar
- (28) Side panel - rear of the A (A2)-pillar

Exterior Components
- (30) Hood
- (31) Outside surface of this vehicle (specify): _____
- (32) Other exterior object in the environment (specify): _____
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): _____
- (99) Unknown

MAGNITUDE OF INTRUSION

- (1) ≥ 3 centimeters but < 8 centimeters
- (2) ≥ 8 centimeters but < 15 centimeters
- (3) ≥ 15 centimeters but < 30 centimeters
- (4) ≥ 30 centimeters but < 46 centimeters
- (5) ≥ 46 centimeters but < 61 centimeters
- (6) ≥ 61 centimeters
- (7) Catastrophic
- (9) Unknown

DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE	—	DAMAGE VALUE	=	DEFORMATION
	—		=	
	—		=	
	—		=	
	—		=	

STEERING COLUMN

87. Steering Column Type — 2 (center position)
(1) Fixed column
(2) Tilt column
(3) Telescoping column
(4) Tilt and telescoping column
(8) Other column type (specify): _____
(9) Unknown

88. Blank — X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

89. Blank — X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

90. Blank — X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

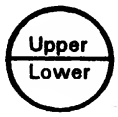
91. Blank — X X X
(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

92. Steering Rim/Spoke Deformation — 0 0
_____Code actual measured deformation to the nearest centimeter
(00) No steering rim deformation
(01-14) Actual measured value in centimeters
(15) 15 centimeters or more
(98) Observed deformation cannot be measured
(99) Unknown

93. Location of Steering Rim/Spoke Deformation — 0 0
(00) No steering rim deformation

Quarter Sections
(01) Section A
(02) Section B
(03) Section C
(04) Section D

Half Sections
(05) Upper half of rim/spoke
(06) Lower half of rim/spoke
(07) Left half of rim/spoke
(08) Right half of rim/spoke



(09) Complete steering wheel collapse
(10) Undetermined location
(99) Unknown

INSTRUMENT PANEL

94. Odometer Reading — 1 8 5,000
_____kilometers—Code to the nearest 1,000 kilometers
(000) No odometer
(001) Less than 1,500 kilometers
(500) 499,500 kilometers or more
(999) Unknown

114896 miles X 1.6093 = 184,902 kilometers

Source: _____

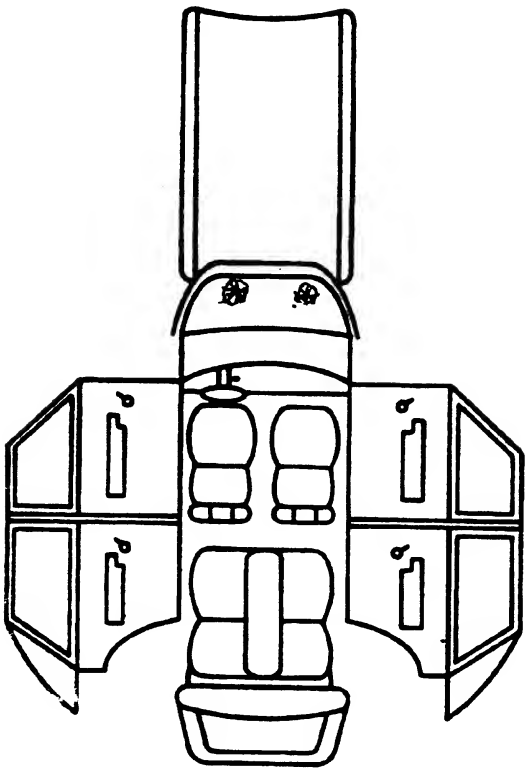
95. Instrument Panel Damage from Occupant Contact? — 1
(0) No
(1) Yes
(9) Unknown

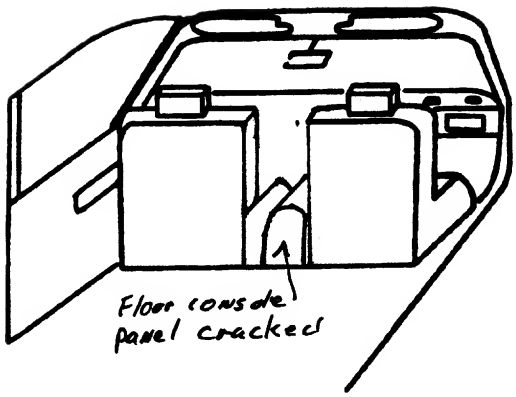
96. Knee Bolsters Deformed from Occupant Contact? — 8
(0) No
(1) Yes
(8) Not present
(9) Unknown

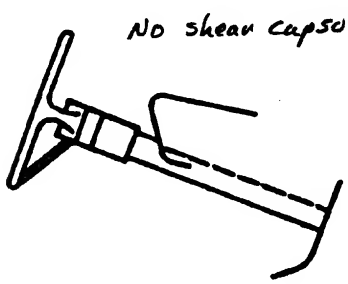
97. Did Glove Compartment Door Open During Collision(s)? — 0
(0) No
(1) Yes
(8) Not present
(9) Unknown

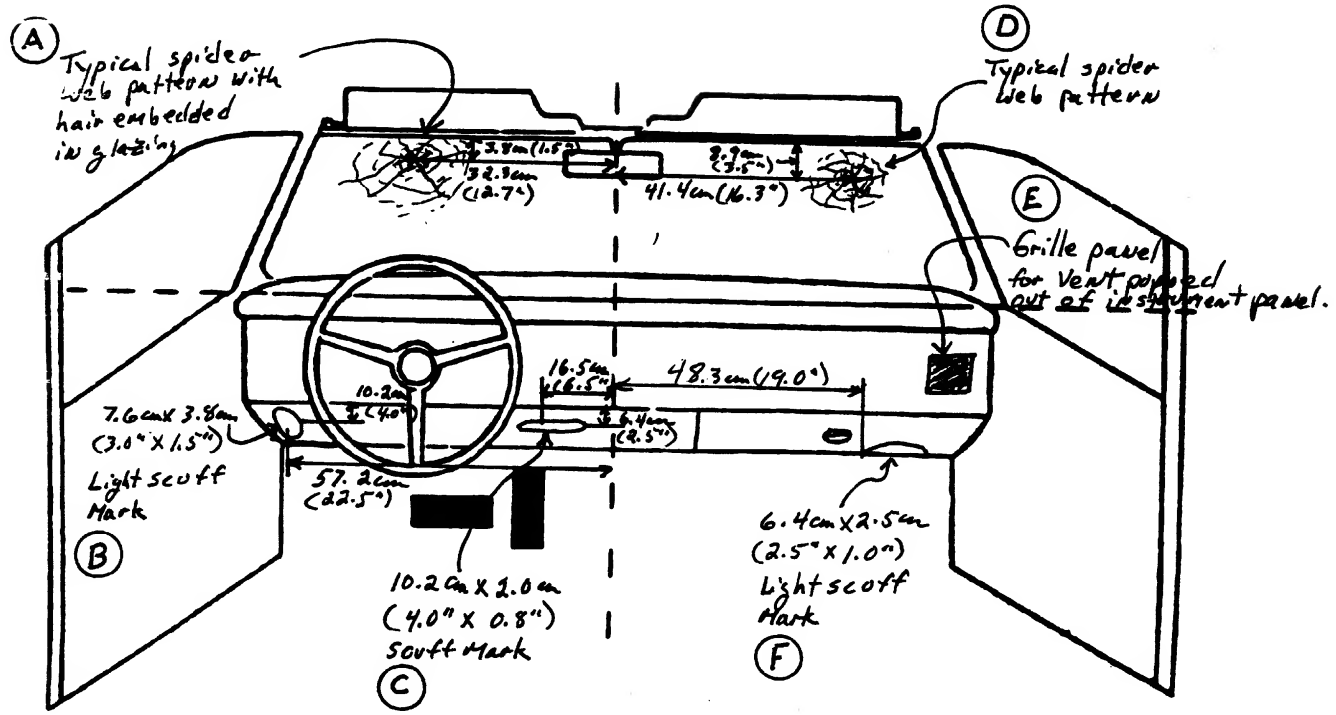
VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment









Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure.
Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.
Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	01	1	Head	Typical spider web pattern, hair embedded	1
B	09	1	(L) knee	Light scuff mark	1
C	09	1	(R) knee	Scuff mark	1
D	01	2	Head	Typical spider web contact pattern	1
E	11	2	(R) Hand	Dislodged airvent grille panel	1
F	11	2	(R) knee	Light scuff mark	1
G					
H					
I					
J					
K					
L					
M					
N					

CODES FOR INTERIOR COMPONENTS

FRONT
- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify):_____
- (19) Other front object (specify):

LEFT SIDE
- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left pillar (specify):
- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify):
- (28) Left side window sill

RIGHT SIDE
- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify):
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B pillar, or roof side rail.
- (37) Other right side object (specify):
- (38) Right side window sill

INTERIOR
- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify):_____
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
- (46) Other occupants (specify):
- (47) Interior loose objects
- (48) Child safety seat (specify):
- (49) Other interior object (specify):

ROOF
- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR
- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR
- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify):

CONFIDENCE LEVEL OF CONTACT POINT
- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

AIR BAGS

		Left	Right
FIRST	Availability/Function	0	0
	Deployment		
	Failure		

Air Bag System Availability/Function
- (0) Not equipped/not available
- (1) Air bag

Non-functional
- (2) Air bag disconnected (specify): _____
- (3) Air bag not reinstalled
- (9) Unknown

Air Bag System Deployment
- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

Are There Indications of Air Bag System Failure?
- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____
- (9) Unknown

AUTOMATIC BELTS

		Left	Right
FIRST	Availability/Function	0	0
	Use		
	Type		
	Proper Use		
	Failure Modes		

Automatic (Passive) Belt System Availability/Function
- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

Non-functional
- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

Automatic (Passive) Belt System Use
- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative)
- (3) Automatic belt use unknown
- (9) Unknown

Automatic (Passive) Belt System Type
- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

Proper Use of Automatic (Passive) Belt System
- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly
- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____
- (8) Other improper use of automatic belt system (specify): _____
- (9) Unknown

Automatic (Passive) Belt Failure Modes During Accident
- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____
- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other automatic belt failure (specify): _____
- (9) Unknown

MANUAL RESTRAINTS

NOTES: Encode the applicable data **for each seat position** in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Ocupant Assessment Form.

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	4		4
	Evidence of usage	04		04
	Used in this crash?	00		00
	Proper Use	0		0
	Failure Modes	0		0
SECOND	Availability	3	3	3
	Evidence of usage	03	03	03
	Used in this crash?	00	00	00
	Proper Use	0	0	0
	Failure Modes	0	0	0
OTHER	Availability			
	Evidence of usage			
	Used in this crash?			
	Proper Use			
	Failure Modes			

Manual (Active) Belt System Availability
- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

Integral Belt Partially Destroyed
- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify): _____
- (9) Unknown

Manual (Active) Belt System Use
- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify): _____
- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify): _____
- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat - type unknown
- (18) Other belt used with child safety seat (specify): _____
- (99) Unknown if belt used

Proper Use of Manual (Active) Belts
- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly
- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____
- (8) Other improper use of manual belt system (specify): _____
- (9) Unknown

Manual (Active) Belt Failure Modes During Accident
- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____
- (6) Broken retractor
- (7) Combination of above (specify): _____
- (8) Other manual belt failure (specify): _____
- (9) Unknown

CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

1. Type of Child Safety Seat

   (0) No child safety seat
   (1) Infant seat
   (2) Toddler seat
   (3) Convertible seat
   (4) Booster seat
   (7) Other type child safety seat (specify): _____
   (8) Unknown child safety seat type
   (9) Unknown if child safety seat used

2. Child Safety Seat Orientation

   (00) No child safety seat

   Designed for Rear Facing for This Age/Weight
   (01) Rear facing
   (02) Forward facing
   (08) Other orientation (specify): _____
   (09) Unknown orientation

   Designed for Forward Facing for This Age/Weight
   (11) Rear facing
   (12) Forward facing
   (18) Other orientation (specify): _____
   (19) Unknown orientation

   Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
   (21) Rear facing
   (22) Forward facing
   (28) Other orientation (specify): _____
   (29) Unknown orientation

   (99) Unknown if child safety seat used

3. Child Safety Seat Harness Usage

4. Child Safety Seat Shield Usage

5. Child Safety Seat Tether Usage
   Note: Options Below Are Used for Variables 3-5.

   (00) No child safety seat

   Not Designed with Harness/Shield/Tether
   (01) After market harness/shield/tether added, not used
   (02) After market harness/shield/tether used
   (03) Child safety seat used, but no after market harness/shield/tether added
   (09) Unknown if harness/shield/tether added or used

   Designed With Harness/Shield/Tether
   (11) Harness/shield/tether not used
   (12) Harness/shield/tether used
   (19) Unknown if harness/shield/tether used

   Unknown If Designed With Harness/Shield/Tether
   (21) Harness/shield/tether not used
   (22) Harness/shield/tether used
   (29) Unknown if harness/shield/tether used

   (99) Unknown if child safety seat used

6. Child Safety Seat Make/Model
   (Specify make/model and occupant number)

   _____
   _____
   _____
   _____

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for **each seat position** in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	3 - (Down position)		3 - (Down position)
	Seat Type	01		01
	Seat Performance	1		1
	Seat Orientation	1		1
SECOND	Head Restraint Type/Damage	0	0	0
	Seat Type	03	03	03
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
THIRD	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			

Head Restraint Type/Damage by Occupant at This Occupant Position

(0) No head restraints
(1) Integral — no damage
(2) Integral — damaged during accident
(3) Adjustable — no damage
(4) Adjustable — damaged during accident
(5) Add-on — no damage
(6) Add-on — damaged during accident
(8) Other Specify): _____
(9) Unknown

Seat Type (this Occupant Position)

(00) Occupant not seated or no seat
(01) Bucket
(02) Bucket with folding back
(03) Bench
(04) Bench with separate back cushions
(05) Bench with folding back(s)
(06) Split bench with separate back cushions
(07) Split bench with folding back(s)
(08) Pedestal (i.e., column supported)
(09) Other seat type (specify): _____
(10) Box mounted seat (i.e., van type)
(99) Unknown

Seat Performance (this Occupant Position)

(0) Occupant not seated or no seat
(1) No seat performance failure(s)
(2) Seat adjusters failed
(3) Seat back folding locks or "seat back" failed specify: _____
(4) Seat tracks/anchors failed
(5) Deformed by impact of occupant
(6) Deformed by passenger compartment intrusion (specify): _____
(7) Combination of above (specify): _____
(8) Other (specify): _____
(9) Unknown

Seat Orientation (this Occupant Position)

(0) Occupant not seated or no seat
(1) Forward facing seat
(2) Rear facing seat
(3) Side facing seat (inward)
(4) Side facing seat (outward)
(8) Other (specify): _____
(9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No [✓] Yes [ ]

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection
(1) Complete ejection
(2) Partial ejection
(3) Ejection, Unknown degree
(9) Unknown

Ejection Area
(1) Windshield
(2) Left front
(3) Right front
(4) Left rear
(5) Right rear
(6) Rear
(7) Roof
(8) Other area (e.g., back of pickup, etc.) (specify): _____
(9) Unknown

Ejection Medium
(1) Door/hatch/tailgate
(2) Nonfixed roof structure
(3) Fixed glazing
(4) Nonfixed glazing (specify): _____
(5) Integral structure
(8) Other medium (specify): _____
(9) Unknown

Medium Status (Immediately Prior to Impact)
(1) Open
(2) Closed
(3) Integral structure
(9) Unknown

ENTRAPMENT No [✓] Yes [ ]

Describe entrapment mechanism: _____

Component(s): _____

(Note in vehicle interior diagram)

U.S. Department of Transportation
National Highway Traffic Safety Administration

OCCUPANT ASSESSMENT FORM

Form Approved
O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: - -
2. Case Number - Stratum: 94-42
3. Vehicle Number: 02
4. Occupant Number: 01

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age: 21
Code actual age at time of accident.
(00) Less than one year old (specify by month): _____
(97) 97 years and older
(99) Unknown

6. Occupant's Sex: 1
(1) Male
(2) Female
(9) Unknown

7. Occupant's Height: 999
Code actual height to the nearest centimeter.
(999) Unknown

___ ___ inches X 2.54 = ___ ___ ___ centimeters

8. Occupant's Weight: 999
Code actual weight to the nearest kilogram.
(999)Unknown

___ ___ ___ pounds X .4536 = ___ ___ ___ kilograms

9. Occupant's Role: 1
(1) Driver
(2) Passenger
(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position: 11

Front Seat
(11) Left side
(12) Middle
(13) Right side
(14) Other (specify): _____
(15) On or in the lap of another occupant

Second Seat
(21) Left side
(22) Middle
(23) Right side
(24) Other (specify): _____
(25) On or in the lap of another occupant

Third Seat
(31) Left side
(32) Middle
(33) Right side
(34) Other (specify): _____
(35) On or in the lap of another occupant

Fourth Seat
(41) Left side
(42) Middle
(43) Right side
(44) Other (specify): _____
(45) On or in the lap of another occupant

(97) In or on unenclosed area
(98) Other seat (specify): _____
(99) Unknown

11. Occupant's Posture: 9
(0) Normal posture

Abnormal posture
(1) Kneeling or standing on seat
(2) Lying on or across seat
(3) Kneeling, standing or sitting in front of seat
(4) Sitting sideways or turned to talk with another occupant or to look out a rear window
(5) Sitting on a console
(6) Lying back in a reclined seat position
(7) Bracing with feet or hands on a surface in front of seat
(8) Other abnormal posture (specify): _____
(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection 0
    (0) No ejection
    (1) Complete ejection
    (2) Partial ejection
    (3) Ejection, unknown degree
    (9) Unknown

13. Ejection Area 0
    (0) No ejection
    (1) Windshield
    (2) Left front
    (3) Right front
    (4) Left rear
    (5) Right rear
    (6) Rear
    (7) Roof
    (8) Other area (e.g., back of pickup, etc.) (specify):_____
    (9) Unknown

14. Ejection Medium 0
    (0) No ejection
    (1) Door/hatch/tailgate
    (2) Nonfixed roof structure
    (3) Fixed glazing
    (4) Nonfixed glazing (specify):
    _____
    (5) Integral structure
    (8) Other medium (specify):
    _____
    (9) Unknown

15. Medium Status (Immediately Prior To Impact) 0
    (0) No ejection
    (1) Open
    (2) Closed
    (3) Integral structure
    (9) Unknown

16. Entrapment 0
    (NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
    (0) Not entrapped
    (1) Entrapped
    (9) Unknown

RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability 4
(0) None available
(1) Belt removed/destroyed
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt available—type unknown

Integral Belt Partially Destroyed
(6) Shoulder belt (lap belt destroyed/removed)
(7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): _____

(9) Unknown

18. Manual (Active) Belt System Use 04
(00) None used, not available, or belt removed/destroyed
(01) Inoperative (specify): _____
(02) Shoulder belt
(03) Lap belt
(04) Lap and shoulder belt
(05) Belt used—type unknown
(08) Other belt used (specify): _____
(12) Shoulder belt used with child safety seat
(13) Lap belt used with child safety seat
(14) Lap and shoulder belt used with child safety seat
(15) Belt used with child safety seat—type unknown
(18) Other belt used with child safety seat (specify): _____
(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts 0
(0) None used or not available
(1) Belt used properly
(2) Belt used properly with child safety seat

Belt Used Improperly
(3) Shoulder belt worn under arm
(4) Shoulder belt worn behind back or seat
(5) Belt worn around more than one person
(6) Lap belt worn on abdomen
(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____
(8) Other improper use of manual belt system (specify): _____
(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident 0
(0) No manual belt used
(1) No manual belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____
(6) Broken retractor
(7) Combination of above (specify): _____
(8) Other manual belt failure (specify): _____
(9) Unknown

21. Air Bag System Availability/Function 0
(0) Not equipped/not available
(1) Air bag

Non-functional
(2) Air bag disconnected (specify): _____
(3) Air bag not reinstalled
(9) Unknown

22. Air Bag System Deployment 0
(0) Not equipped/not available
(1) Air bag deployed during accident (as a result of impact)
(2) Air bag deployed inadvertently just prior to accident
(3) Air bag deployed, accident sequence undetermined
(4) Nondeployed
(5) Unknown if deployed
(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(9) Unknown

23. Are There Indications of Air Bag System Failure? 0
(0) Not equipped/not available
(1) No
(2) Yes (specify): _____
(9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use 0
(0) None used
(1) Police did not indicate restraint use
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt used, type not specified
(6) Child safety seat
(7) Other or automatic restraint (specify): _____
(8) Restrained, type unknown
(9) Police indicated "unknown"

HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant at This Occupant Position — 3
    - (0) No head restraints
    - (1) Integral—no damage
    - (2) Integral—damaged during accident
    - (3) Adjustable—no damage
    - (4) Adjustable—damaged during accident
    - (5) Add-on—no damage
    - (6) Add-on—damaged during accident
    - (8) Other (specify): _____
    - (9) Unknown

26. Seat Type (this Occupant Position) — 01
    - (00) Occupant not seated or no seat
    - (01) Bucket
    - (02) Bucket with folding back
    - (03) Bench
    - (04) Bench with separate back cushions
    - (05) Bench with folding back(s)
    - (06) Split bench with separate back cushions
    - (07) Split bench with folding back(s)
    - (08) Pedestal (i.e., column supported)
    - (09) Other seat type (specify): _____
    - (10) Box mounted seat (i.e., van type)
    - (99) Unknown

27. Seat Performance (this Occupant Position) — 1
    - (0) Occupant not seated or no seat
    - (1) No seat performance failure(s)
    - (2) Seat adjusters failed
    - (3) Seat back folding locks or "seat back" failed (specify): _____
    - (4) Seat track/anchors failed
    - (5) Deformed by impact of occupant
    - (6) Deformed by passenger compartment intrusion (specify): _____
    - (7) Combination of above (specify): _____
    - (8) Other (specify): _____
    - (9) Unknown

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model 0 0 0
(000) No child safety seat
Applicable codes are found in your NASS CDS Data Collection, Coding and Editing
(950) Built-in child safety seat
(997) Other make/model (specify): _____
(998) Unknown make/model
(999) Unknown if child safety seat used

29. Type of Child Safety Seat 0
(0) No child safety seat
(1) Infant seat
(2) Toddler seat
(3) Convertible seat
(4) Booster seat
(7) Other type child safety seat (specify): _____
(8) Unknown child safety seat type
(9) Unknown if child safety seat used

30. Child Safety Seat Orientation 00
(00) No child safety seat

Designed for Rear Facing for This Age/Weight
(01) Rear facing
(02) Forward facing
(08) Other orientation (specify): _____
(09) Unknown orientation

Designed For Forward Facing for This Age/Weight
(11) Rear facing
(12) Forward facing
(18) Other orientation (specify): _____
(19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
(21) Rear facing
(22) Forward facing
(28) Other orientation (specify): _____
(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 00

32. Child Safety Seat Shield Usage 00

33. Child Safety Seat Tether Usage 00

Note: Options below applicable to Variables OA31-OA33.
(00) No child safety seat

Not Designed With Harness/Shield/Tether
(01) After market harness/shield/tether added, not used
(02) After market harness/shield/tether used
(03) Child safety seat used, but no after market harness/shield/tether added
(09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether
(11) Harness/shield/tether not used
(12) Harness/shield/tether used
(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether
(21) Harness/shield/tether not used
(22) Harness/shield/tether used
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES

34. Injury Severity (Police Rating) 3

(0) O - No injury
(1) C - Possible injury
(2) B - Nonincapacitating injury
(3) A - Incapacitating injury
(4) K - Killed
(5) U - Injury, severity unknown
(6) Died prior to accident
(9) Unknown

35. Treatment - Mortality 9

(0) No treatment
(1) Fatal
(2) Fatal - ruled disease (specify): Refused emergency treatment

Nonfatal
(3) Hospitalization
(4) Transported and released
(5) Treatment at scene - nontransported
(6) Treatment later
(8) Treatment - other (specify):
(9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 9

(0) Not treated at a medical facility
(1) Trauma center
(2) Hospital
(3) Medical clinic
(4) Physician's office
(5) Treatment later at medical facility
(8) Other (specify):
(9) Unknown

37. Hospital Stay 99

(00) Not Hospitalized
_____Code the number of days (up through 60) that the occupant stayed in hospital.
(61) 61 days or more
(99) Unknown

38. Working Days Lost 99

_____Code the number of days (up through 60) that the occupant lost from work due to the accident
(00) No working days lost
(61) 61 days or more
(62) Fatally injured
(97) Not working prior to accident
(99) Unknown

STOP - GO TO VARIABLE 44 ON PAGE 7

VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER

39. Time to Death 00

_____Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 +n up through 30 days = 60)
(00) Not fatal
(96) Fatal - ruled disease
(99) Unknown

40. 1st Medically Reported Cause of Death 00

41. 2nd Medically Reported Cause of Death 00

42. 3rd Medically Reported Cause of Death 00

_____Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
(00) Not fatal or no additional causes
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):
(97) Other result (includes fatal ruled disease) (specify):
(99) Unknown

43. Number of Recorded Injuries for This Occupant 01

_____Code the actual number of injuries recorded for this occupant.
(00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

AUTOMATIC BELT SYSTEM

44. Automatic (Passive) Belt System Availability/ Function — 0
(0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

Non-functional
(4) Automatic belts destroyed or rendered inoperative
(9) Unknown

45. Automatic (Passive) Belt System Use — 0
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
(3) Automatic belt use unknown
(9) Unknown

46. Automatic (Passive) Belt System Type — 0
(0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

47. Proper Use of Automatic (Passive) Belt System — 0
(0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly
(3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):
(8) Other improper use of automatic belt system (specify):
(9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident — 0
(0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):
(6) Broken retractor
(7) Combination of above (specify):
(8) Other automatic belt failure (specify):
(9) Unknown

49. Seat Orientation (this Occupant Position) — 1
(0) Occupant not seated or no seat
(1) Forward facing seat
(2) Rear facing seat
(3) Side facing seat (inward)
(4) Side facing seat (outward)
(8) Other (specify):
(9) Unknown

Check the Primary Source Used In Determining Belt Use.

[ ] Not equipped/not available/destroyed or rendered inoperative
[ ] Vehicle inspection
[ ] Official injury data
[ ] Driver/occupant interview
[ ] Other (specify):
[ ] Unknown if belt used

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION? NO [ ] YES [ ]

UPDATE CANDIDATE? NO [ ] YES [ ]

STOP - VARIABLES 50 THROUGH 53 ARE COMPLETED BY THE ZONE CENTER

TRAUMA DATA

50. Glasgow Coma Scale (GCS) Score (at Medical Facility) 97
    (00) Not injured
    (01) Injured - not treated at medical facility
    (02) No GCS Score at medical facility
    (03-15) Code the actual value of the initial GCS Score recorded at medical facility.
    (97) Injured, details unknown
    (99) Unknown if injured

51. Was the Occupant Given Blood? 1
    (1) No - blood not given
    (2) Yes - blood given
    (specify units):_____
    (9) Unknown if blood given

52. Arterial Blood Gases (ABG) – HCO_3 97
    (00) Not injured
    (01) Injured, ABGs not measured or reported
    (02-50) Code the actual value of the HCO_3
    (96) ABGs reported , HCO_3 unknown
    (97) Injured, details unknown
    (99) Unknown if injured

BELT USE DETERMINATION

53. Primary Source of Belt Use Determination 1
    (0) Not equipped/not available/destroyed or rendered inoperative
    (1) Vehicle inspection
    (2) Official injury data
    (3) Driver/occupant interview
    (8) Other (specify):_____
    (9) Unknown if belt used

U.S. Department of Transportation
National Highway Traffic Safety Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: - -
2. Case Number - Stratum: 94-42
3. Vehicle Number: 02
4. Occupant Number: 01

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	A.I.S. - 90 Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
1st	5. 9	6. 2	7. 9	8. 06	9. 00	10. 1	11. 7	12. 01	13. 1	14. 1	15. 00
2nd	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.
3rd	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.	37.
4th	38.	39.	40.	41.	42.	43.	44.	45.	46.	47.	48.
5th	49.	50.	51.	52.	53.	54.	55.	56.	57.	58.	59.
6th	60.	61.	62.	63.	64.	65.	66.	67.	68.	69.	70.
7th	71.	72.	73.	74.	75.	76.	77.	78.	79.	80.	81.
8th	82.	83.	84.	85.	86.	87.	88.	89.	90.	91.	92.
9th	93.	94.	95.	96.	97.	98.	99.	100.	101.	102.	103.
10th	104.	105.	106.	107.	108.	109.	110.	111.	112.	113.	114.

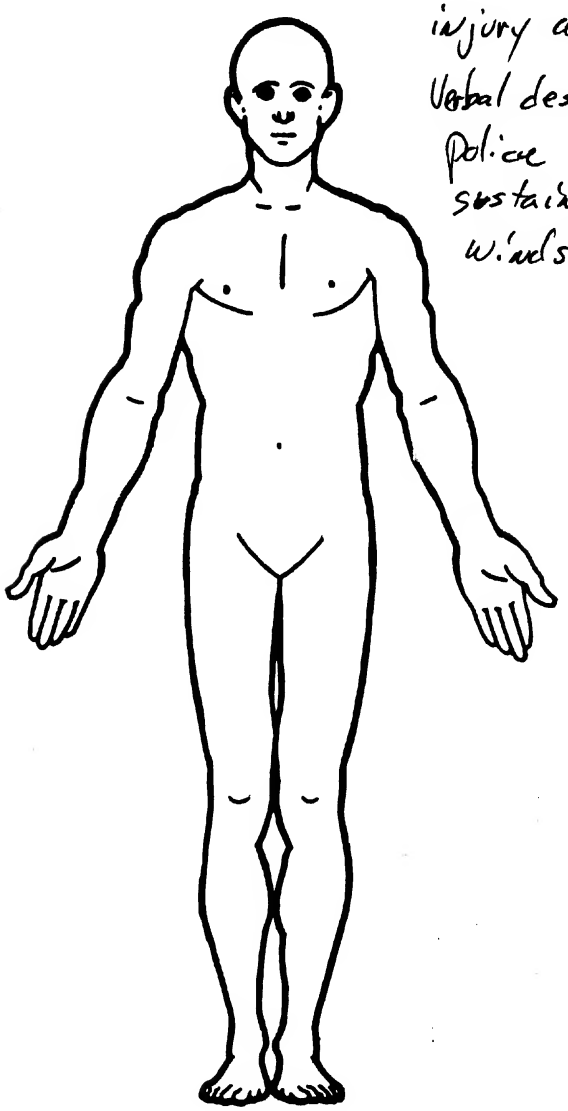
OCCUPANT INJURY DATA

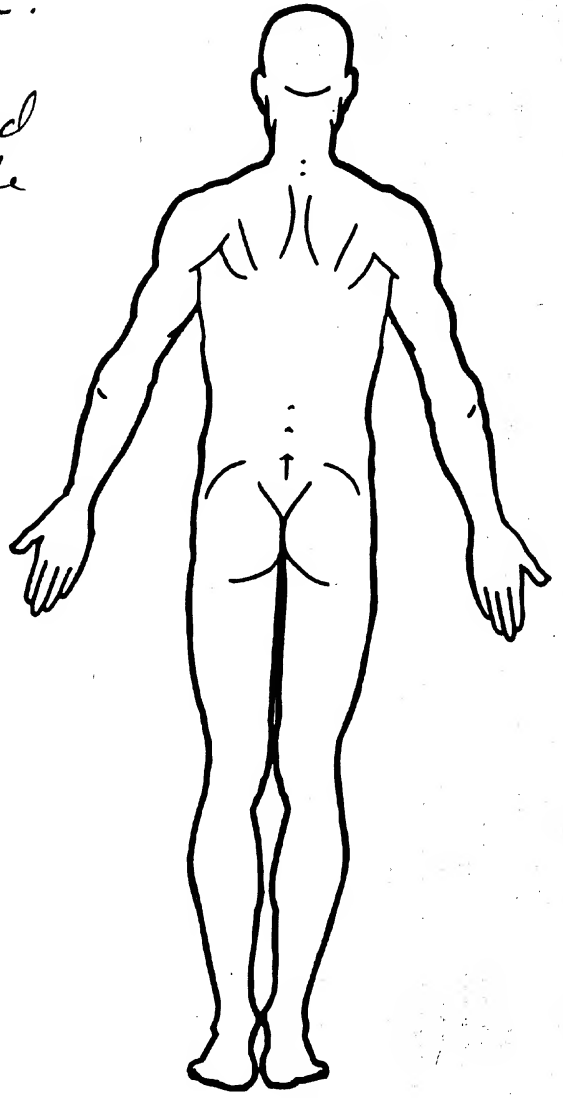
	Source of Injury Data	A.I.S. - 90 Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
11th											
12th											
13th											
14th											
15th											
16th											
17th											
18th											
19th											
20th											
21st											
22nd											
23rd											
24th											
25th											

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Police Report listed injury as a concussion. Verbal description by the police indicated forehead sustained cuts from the windshield contact





SOURCE OF INJURY DATA

OFFICIAL
(1) Autopsy records with or without hospital/medical records
(2) Hospital/medical records other than emergency room (e.g., discharge summary)
(3) Emergency room records only (including associated X-rays or other lab reports)
(4) Private physician, walk-in or emergency clinic

UNOFFICIAL
(5) Lay coroner report
(6) E.M.S. personnel
(7) Interviewee
(8) Other source (specify): _____
(9) Police

INJURY SOURCE

FRONT
(01) Windshield
(02) Mirror
(03) Sunvisor
(04) Steering wheel rim
(05) Steering wheel hub/spoke
(06) Steering wheel (combination of codes 04 and 05)
(07) Steering column, transmission selector lever, other attachment
(08) Add on equipment (e.g., CB, tape deck, air conditioner)
(09) Left instrument panel and below
(10) Center instrument panel and below
(11) Right instrument panel and below
(12) Glove compartment door
(13) Knee bolster
(14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
(15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
(16) Driver side air bag compartment cover
(17) Passenger side air bag compartment cover
(18) Windshield reinforced by exterior object (specify): _____
(19) Other front object (specify): _____

LEFT SIDE
(20) Left side interior surface, excluding hardware or armrests
(21) Left side hardware or armrest
(22) Left A (A1/A2)-pillar
(23) Left B-pillar
(24) Other left pillar (specify): _____
(25) Left side window glass or frame
(26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
(27) Other left side object (specify): _____
(28) Left side window sill

RIGHT SIDE
(30) Right side interior surface, excluding hardware or armrests
(31) Right side hardware or armrest
(32) Right A (A1/A2)-pillar
(33) Right B-pillar
(34) Other right pillar (specify): _____
(35) Right side window glass or frame
(36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
(37) Other right side object (specify): _____
(38) Right side window sill

INTERIOR
(40) Seat, back support
(41) Belt restraint webbing/buckle
(42) Belt restraint B-pillar or door frame attachment point
(43) Other restraint system component (specify): _____
(44) Head restraint system
(45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
(46) Other occupants (specify): _____
(47) Interior loose objects
(48) Child safety seat (specify): _____
(49) Other interior object (specify): _____

ROOF
(50) Front header
(51) Rear header
(52) Roof left side rail
(53) Roof right side rail
(54) Roof or convertible top

FLOOR
(56) Floor (including toe pan)
(57) Floor or console mounted transmission lever, including console
(58) Parking brake handle
(59) Foot controls including parking brake

REAR
(60) Backlight (rear window)
(61) Backlight storage rack, door, etc.
(62) Other rear object (specify): _____

EXTERIOR of OCCUPANT'S VEHICLE
(65) Hood
(66) Outside hardware (e.g., outside mirror, antenna)
(67) Other exterior surface or tires (specify): _____
(68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE
(70) Front bumper
(71) Hood edge
(72) Other front of vehicle (specify): _____
(73) Hood
(74) Hood ornament
(75) Windshield, roof rail, A-pillar
(76) Side surface
(77) Side mirrors
(78) Other side protrusions (specify) _____
(79) Rear surface
(80) Undercarriage
(81) Tires and wheels
(82) Other exterior of other motor vehicle (specify): _____
(83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT
(84) Ground
(85) Other vehicle or object (specify) _____
(86) Unknown vehicle or object

NONCONTACT INJURY
(90) Fire in vehicle
(91) Flying glass
(92) Other noncontact injury source (specify): _____
(93) Air bag exhaust gases
(97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

(1) Certain
(2) Probable
(3) Possible
(9) Unknown

DIRECT/INDIRECT INJURY

(1) Direct contact injury
(2) Indirect contact injury
(3) Noncontact injury
(7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION

Body Region

(1) Head
(2) Face
(3) Neck
(4) Thorax
(5) Abdomen
(6) Spine
(7) Upper Extremity
(8) Lower Extremity
(9) Unspecified

Type of Anatomic Structure

(1) Whole Area
(2) Vessels
(3) Nerves
(4) Organs (includes muscles/ligaments)
(5) Skeletal (includes joints)
(6) Head - LOC
(9) Skin

Specific Anatomic Structure

Whole Area
(02) Skin - Abrasion
(04) Skin - Contusion
(06) Skin - Laceration
(08) Skin - Avulsion
(10) Amputation
(20) Burn
(30) Crush
(40) Degloving
(50) Injury - NFS
(90) Trauma, other than mechanical

Head - LOC
(02) Length of LOC
(04, 06, 08) Level of Consciousness
(10) Concussion

Spine
(02) Cervical
(04) Thoracic
(06) Lumbar

Vessels, Nerves, Organs, Bones, Joints are assigned consecutive two digit numbers beginning with 02

Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

Abbreviated Injury Scale

(1) Minor injury
(2) Moderate injury
(3) Serious injury
(4) Severe injury
(5) Critical injury
(6) Maximum (untreatable)
(7) Injured, unknown severity

Aspect

(1) Right
(2) Left
(3) Bilateral
(4) Central
(5) Anterior
(6) Posterior
(7) Superior
(8) Inferior
(9) Unknown
(0) Whole region

U.S. Department of Transportation
National Highway Traffic Safety Administration

OCCUPANT ASSESSMENT FORM

Form Approved
O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: — —
2. Case Number - Stratum: 94-42
3. Vehicle Number: 02
4. Occupant Number: 02

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age: 23
Code actual age at time of accident.
(00) Less than one year old (specify by month): _____
(97) 97 years and older
(99) Unknown

6. Occupant's Sex: 1
(1) Male
(2) Female
(9) Unknown

7. Occupant's Height: 999
Code actual height to the nearest centimeter.
(999) Unknown

___ ___ inches X 2.54 = ___ ___ ___ centimeters

8. Occupant's Weight: 999
Code actual weight to the nearest kilogram.
(999)Unknown

___ ___ ___ pounds X .4536 = ___ ___ ___ kilograms

9. Occupant's Role: 2
(1) Driver
(2) Passenger
(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position: 13

Front Seat
(11) Left side
(12) Middle
(13) Right side
(14) Other (specify): _____
(15) On or in the lap of another occupant

Second Seat
(21) Left side
(22) Middle
(23) Right side
(24) Other (specify): _____
(25) On or in the lap of another occupant

Third Seat
(31) Left side
(32) Middle
(33) Right side
(34) Other (specify): _____
(35) On or in the lap of another occupant

Fourth Seat
(41) Left side
(42) Middle
(43) Right side
(44) Other (specify): _____
(45) On or in the lap of another occupant

(97) In or on unenclosed area
(98) Other seat (specify): _____
(99) Unknown

11. Occupant's Posture: 9
(0) Normal posture

Abnormal posture
(1) Kneeling or standing on seat
(2) Lying on or across seat
(3) Kneeling, standing or sitting in front of seat
(4) Sitting sideways or turned to talk with another occupant or to look out a rear window
(5) Sitting on a console
(6) Lying back in a reclined seat position
(7) Bracing with feet or hands on a surface in front of seat
(8) Other abnormal posture (specify): _____
(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection 0
    (0) No ejection
    (1) Complete ejection
    (2) Partial ejection
    (3) Ejection, unknown degree
    (9) Unknown

13. Ejection Area 0
    (0) No ejection
    (1) Windshield
    (2) Left front
    (3) Right front
    (4) Left rear
    (5) Right rear
    (6) Rear
    (7) Roof
    (8) Other area (e.g., back of pickup, etc.) (specify):_____
    (9) Unknown

14. Ejection Medium 0
    (0) No ejection
    (1) Door/hatch/tailgate
    (2) Nonfixed roof structure
    (3) Fixed glazing
    (4) Nonfixed glazing (specify):
    _____
    (5) Integral structure
    (8) Other medium (specify):
    _____
    (9) Unknown

15. Medium Status (Immediately Prior To Impact) 0
    (0) No ejection
    (1) Open
    (2) Closed
    (3) Integral structure
    (9) Unknown

16. Entrapment 0
    (NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)
    (0) Not entrapped
    (1) Entrapped
    (9) Unknown

RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability 4
(0) None available
(1) Belt removed/destroyed
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt available—type unknown

Integral Belt Partially Destroyed
(6) Shoulder belt (lap belt destroyed/removed)
(7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): _____

(9) Unknown

18. Manual (Active) Belt System Use 00
(00) None used, not available, or belt removed/destroyed
(01) Inoperative (specify): _____
(02) Shoulder belt
(03) Lap belt
(04) Lap and shoulder belt
(05) Belt used—type unknown
(08) Other belt used (specify): _____
(12) Shoulder belt used with child safety seat
(13) Lap belt used with child safety seat
(14) Lap and shoulder belt used with child safety seat
(15) Belt used with child safety seat—type unknown
(18) Other belt used with child safety seat (specify): _____
(99) Unknown if belt used

19. Proper Use of Manual (Active) Beits 0
(0) None used or not available
(1) Belt used properly
(2) Belt used properly with child safety seat

Belt Used Improperly
(3) Shoulder belt worn under arm
(4) Shoulder belt worn behind back or seat
(5) Belt worn around more than one person
(6) Lap belt worn on abdomen
(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____
(8) Other improper use of manual belt system (specify): _____
(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident 6
(0) No manual belt used
(1) No manual belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify): _____
(6) Broken retractor
(7) Combination of above (specify): _____
(8) Other manual belt failure (specify): _____
(9) Unknown

21. Air Bag System Availability/Function 0
(0) Not equipped/not available
(1) Air bag

Non-functional
(2) Air bag disconnected (specify): _____
(3) Air bag not reinstalled
(9) Unknown

22. Air Bag System Deployment 0
(0) Not equipped/not available
(1) Air bag deployed during accident (as a result of impact)
(2) Air bag deployed inadvertently just prior to accident
(3) Air bag deployed, accident sequence undetermined
(4) Nondeployed
(5) Unknown if deployed
(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(9) Unknown

23. Are There Indications of Air Bag System Failure? 0
(0) Not equipped/not available
(1) No
(2) Yes (specify): _____
(9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use 0
(0) None used
(1) Police did not indicate restraint use
(2) Shoulder belt
(3) Lap belt
(4) Lap and shoulder belt
(5) Belt used, type not specified
(6) Child safety seat
(7) Other or automatic restraint (specify): _____
(8) Restrained, type unknown
(9) Police indicated "unknown"

HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant at This Occupant Position 3
    (0) No head restraints
    (1) Integral—no damage
    (2) Integral—damaged during accident
    (3) Adjustable—no damage
    (4) Adjustable—damaged during accident
    (5) Add-on—no damage
    (6) Add-on—damaged during accident
    (8) Other (specify): _____
    (9) Unknown

26. Seat Type (this Occupant Position) 01
    (00) Occupant not seated or no seat
    (01) Bucket
    (02) Bucket with folding back
    (03) Bench
    (04) Bench with separate back cushions
    (05) Bench with folding back(s)
    (06) Split bench with separate back cushions
    (07) Split bench with folding back(s)
    (08) Pedestal (i.e., column supported)
    (09) Other seat type (specify): _____
    (10) Box mounted seat (i.e., van type)
    (99) Unknown

27. Seat Performance (this Occupant Position) 1
    (0) Occupant not seated or no seat
    (1) No seat performance failure(s)
    (2) Seat adjusters failed
    (3) Seat back folding locks or "seat back" failed (specify): _____
    (4) Seat track/anchors failed
    (5) Deformed by impact of occupant
    (6) Deformed by passenger compartment intrusion (specify): _____
    (7) Combination of above (specify): _____
    (8) Other (specify): _____
    (9) Unknown

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model ___0006___
(000) No child safety seat
Applicable codes are found in your NASS CDS Data Collection, Coding and Editing
(950) Built-in child safety seat
(997) Other make/model (specify):
_____
(998) Unknown make/model
(999) Unknown if child safety seat used

29. Type of Child Safety Seat ___0___
(0) No child safety seat
(1) Infant seat
(2) Toddler seat
(3) Convertible seat
(4) Booster seat
(7) Other type child safety seat (specify):
_____
(8) Unknown child safety seat type
(9) Unknown if child safety seat used

30. Child Safety Seat Orientation ___00___
(00) No child safety seat

Designed for Rear Facing for This Age/Weight
(01) Rear facing
(02) Forward facing
(08) Other orientation (specify):
_____
(09) Unknown orientation

Designed For Forward Facing for This Age/Weight
(11) Rear facing
(12) Forward facing
(18) Other orientation (specify):
_____
(19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
(21) Rear facing
(22) Forward facing
(28) Other orientation (specify):
_____
(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage ___00___

32. Child Safety Seat Shield Usage ___00___

33. Child Safety Seat Tether Usage ___00___

Note: Options below applicable to Variables OA31-OA33.
(00) No child safety seat

Not Designed With Harness/Shield/Tether
(01) After market harness/shield/tether added, not used
(02) After market harness/shield/tether used
(03) Child safety seat used, but no after market harness/shield/tether added
(09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether
(11) Harness/shield/tether not used
(12) Harness/shield/tether used
(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether
(21) Harness/shield/tether not used
(22) Harness/shield/tether used
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES

34. Injury Severity (Police Rating) 3

(0) O - No injury
(1) C - Possible injury
(2) B - Nonincapacitating injury
(3) A - Incapacitating injury
(4) K - Killed
(5) U - Injury, severity unknown
(6) Died prior to accident
(9) Unknown

35. Treatment - Mortality 9
(0) No treatment Refused emergency treatment
(1) Fatal
(2) Fatal - ruled disease (specify):
_____

Nonfatal
(3) Hospitalization
(4) Transported and released
(5) Treatment at scene - nontransported
(6) Treatment later
(8) Treatment - other (specify):
_____
(9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 9
(0) Not treated at a medical facility
(1) Trauma center
(2) Hospital
(3) Medical clinic
(4) Physician's office
(5) Treatment later at medical facility
(8) Other (specify):
_____
(9) Unknown

37. Hospital Stay 99
(00) Not Hospitalized
____Code the number of days (up through 60) that the occupant stayed in hospital.
(61) 61 days or more
(99) Unknown

38. Working Days Lost 99
____Code the number of days (up through 60) that the occupant lost from work due to the accident
(00) No working days lost
(61) 61 days or more
(62) Fatally injured
(97) Not working prior to accident
(99) Unknown

STOP - GO TO VARIABLE 44 ON PAGE 7

VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER

39. Time to Death 00
____Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 +n up through 30 days = 60)
(00) Not fatal
(96) Fatal - ruled disease
(99) Unknown

40. 1st Medically Reported Cause of Death 00

41. 2nd Medically Reported Cause of Death 00

42. 3rd Medically Reported Cause of Death 00
____Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
(00) Not fatal or no additional causes
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):
_____
(97) Other result (includes fatal ruled disease) (specify):
_____
(99) Unknown

43. Number of Recorded Injuries for This Occupant 01
____Code the actual number of injuries recorded for this occupant.
(00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

AUTOMATIC BELT SYSTEM

44. Automatic (Passive) Belt System Availability/ Function 0
(0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

Non-functional
(4) Automatic belts destroyed or rendered inoperative
(9) Unknown

45. Automatic (Passive) Belt System Use 0
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
(3) Automatic belt use unknown
(9) Unknown

46. Automatic (Passive) Belt System Type 0
(0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

47. Proper Use of Automatic (Passive) Belt System 0
(0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly
(3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):
(8) Other improper use of automatic belt system (specify):
(9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident 0
(0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):
(6) Broken retractor
(7) Combination of above (specify):
(8) Other automatic belt failure (specify):
(9) Unknown

49. Seat Orientation (this Occupant Position) 1
(0) Occupant not seated or no seat
(1) Forward facing seat
(2) Rear facing seat
(3) Side facing seat (inward)
(4) Side facing seat (outward)
(8) Other (specify):
(9) Unknown

Check the Primary Source Used In Determining Belt Use.

[ ] Not equipped/not available/destroyed or rendered inoperative
[ ] Vehicle inspection
[ ] Official injury data
[ ] Driver/occupant interview
[ ] Other (specify):
[ ] Unknown if belt used

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION? NO [ ] YES [ ]

UPDATE CANDIDATE? NO [ ] YES [ ]

STOP - VARIABLES 50 THROUGH 53 ARE COMPLETED BY THE ZONE CENTER

TRAUMA DATA

50. Glasgow Coma Scale (GCS) Score (at Medical Facility) 97
    (00) Not injured
    (01) Injured - not treated at medical facility
    (02) No GCS Score at medical facility
    (03-15) Code the actual value of the initial GCS Score recorded at medical facility.
    (97) Injured, details unknown
    (99) Unknown if injured

51. Was the Occupant Given Blood? 1
    (1) No - blood not given
    (2) Yes - blood given
    (specify units):_____
    (9) Unknown if blood given

52. Arterial Blood Gases (ABG) – HCO_3 97
    (00) Not injured
    (01) Injured, ABGs not measured or reported
    (02-50) Code the actual value of the HCO_3
    (96) ABGs reported , HCO_3 unknown
    (97) Injured, details unknown
    (99) Unknown if injured

BELT USE DETERMINATION

53. Primary Source of Belt Use Determination 1
    (0) Not equipped/not available/destroyed or rendered inoperative
    (1) Vehicle inspection
    (2) Official injury data
    (3) Driver/occupant interview
    (8) Other (specify):_____
    (9) Unknown if belt used

U.S. Department of Transportation
National Highway Traffic Safety Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number ___
2. Case Number - Stratum 94-42
3. Vehicle Number 02
4. Occupant Number 02

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

			A.I.S. - 90									
	Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Injury Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
1st	5. 9	6. 2	7. 9	8. 06	9. 00	10. 1	11. 7	12. 01	13. 1	14. 1	15. 00
2nd	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.
3rd	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.	37.
4th	38.	39.	40.	41.	42.	43.	44.	45.	46.	47.	48.
5th	49.	50.	51.	52.	53.	54.	55.	56.	57.	58.	59.
6th	60.	61.	62.	63.	64.	65.	66.	67.	68.	69.	70.
7th	71.	72.	73.	74.	75.	76.	77.	78.	79.	80.	81.
8th	82.	83.	84.	85.	86.	87.	88.	89.	90.	91.	92.
9th	93.	94.	95.	96.	97.	98.	99.	100.	101.	102.	103.
10th	104.	105.	106.	107.	108.	109.	110.	111.	112.	113.	114.

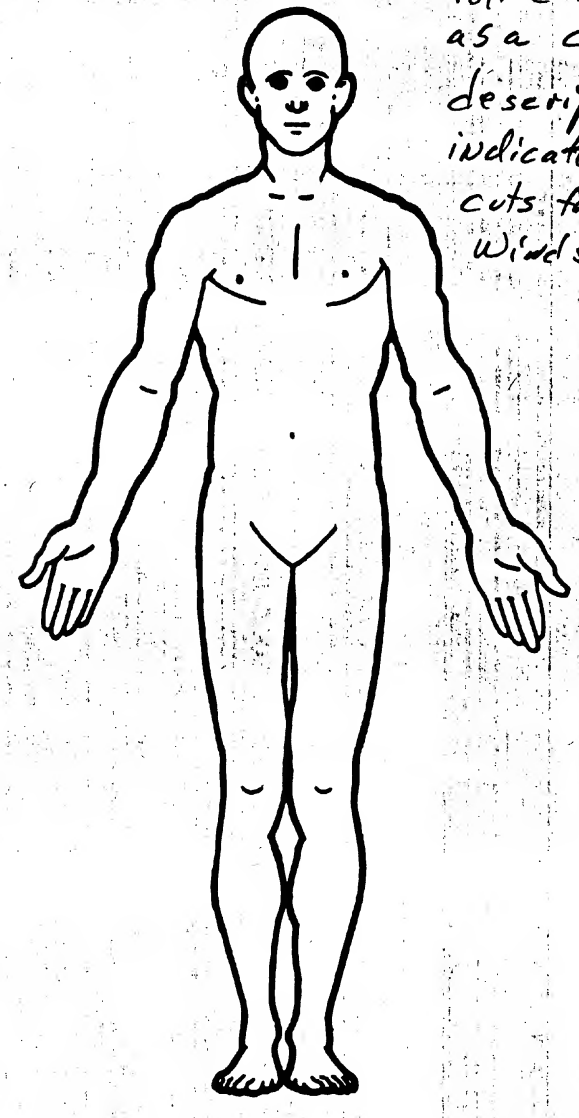
OCCUPANT INJURY DATA

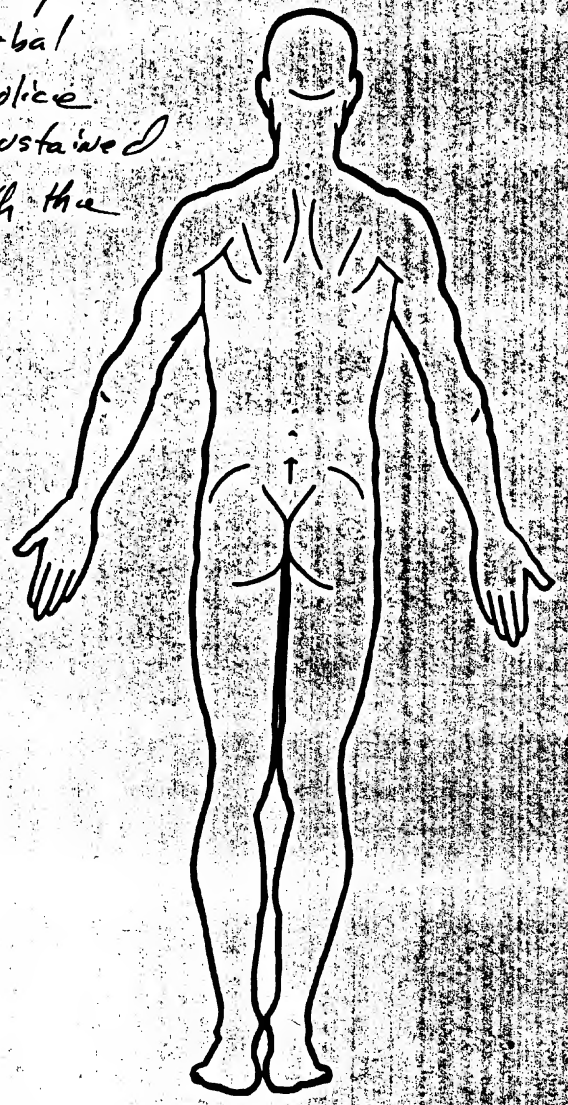
	A.I.S. - 90										
	Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area of Intrusion Number
11th											
12th											
13th											
14th											
15th											
16th											
17th											
18th											
19th											
20th											
21st											
22nd											
23rd											
24th											
25th											

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Police report listed injury as a concussion. Verbal description by the police indicated forehead sustained cuts from contact with the windshield.





SOURCE OF INJURY DATA

OFFICIAL
(1) Autopsy records with or without hospital/medical records
(2) Hospital/medical records other than emergency room (e.g., discharge summary)
(3) Emergency room records only (including associated X-rays or other lab reports)
(4) Private physician, walk-in or emergency clinic

UNOFFICIAL
(5) Lay coroner report
(6) E.M.S. personnel
(7) Interviewee
(8) Other source (specify):

(9) Police

INJURY SOURCE

FRONT
(01) Windshield
(02) Mirror
(03) Sunvisor
(04) Steering wheel rim
(05) Steering wheel hub/spoke
(06) Steering wheel (combination of codes 04 and 05)
(07) Steering column, transmission selector lever, other attachment
(08) Add on equipment (e.g., CB, tape deck, air conditioner)
(09) Left instrument panel and below
(10) Center instrument panel and below
(11) Right instrument panel and below
(12) Glove compartment door
(13) Knee bolster
(14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
(15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
(16) Driver side air bag compartment cover
(17) Passenger side air bag compartment cover
(18) Windshield reinforced by exterior object (specify):
(19) Other front object (specify):

LEFT SIDE
(20) Left side interior surface, excluding hardware or armrests
(21) Left side hardware or armrest
(22) Left A (A1/A2)-pillar
(23) Left B-pillar
(24) Other left pillar (specify):
(25) Left side window glass or frame
(26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
(27) Other left side object (specify):
(28) Left side window sill

RIGHT SIDE
(30) Right side interior surface, excluding hardware or armrests
(31) Right side hardware or armrest
(32) Right A (A1/A2)-pillar
(33) Right B-pillar
(34) Other right pillar (specify):
(35) Right side window glass or frame
(36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
(37) Other right side object (specify):
(38) Right side window sill

INTERIOR
(40) Seat, back support
(41) Belt restraint webbing/buckle
(42) Belt restraint B-pillar or door frame attachment point
(43) Other restraint system component (specify):
(44) Head restraint system
(45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
(46) Other occupants (specify):
(47) Interior loose objects
(48) Child safety seat (specify):
(49) Other interior object (specify):

ROOF
(50) Front header
(51) Rear header
(52) Roof left side rail
(53) Roof right side rail
(54) Roof or convertible top

FLOOR
(56) Floor (including toe pan)
(57) Floor or console mounted transmission lever, including console
(58) Parking brake handle
(59) Foot controls including parking brake

REAR
(60) Backlight (rear window)
(61) Backlight storage rack, door, etc.
(62) Other rear object (specify):

EXTERIOR of OCCUPANT'S VEHICLE
(65) Hood
(66) Outside hardware (e.g., outside mirror, antenna)
(67) Other exterior surface or tires (specify):
(68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE
(70) Front bumper
(71) Hood edge
(72) Other front of vehicle (specify):
(73) Hood
(74) Hood ornament
(75) Windshield, roof rail, A-pillar
(76) Side surface
(77) Side mirrors
(78) Other side protrusions (specify)
(79) Rear surface
(80) Undercarriage
(81) Tires and wheels
(82) Other exterior of other motor vehicle (specify):
(83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT
(84) Ground
(85) Other vehicle or object (specify)
(86) Unknown vehicle or object

NONCONTACT INJURY
(90) Fire in vehicle
(91) Flying glass
(92) Other noncontact injury source (specify):
(93) Air bag exhaust gases
(97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

(1) Certain
(2) Probable
(3) Possible
(9) Unknown

DIRECT/INDIRECT INJURY

(1) Direct contact injury
(2) Indirect contact injury
(3) Noncontact injury
(7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION

Body Region

(1) Head
(2) Face
(3) Neck
(4) Thorax
(5) Abdomen
(6) Spine
(7) Upper Extremity
(8) Lower Extremity
(9) Unspecified

Type of Anatomic Structure

(1) Whole Area
(2) Vessels
(3) Nerves
(4) Organs (includes muscles/ligaments)
(5) Skeletal (includes joints)
(6) Head - LOC
(9) Skin

Specific Anatomic Structure

Whole Area
(02) Skin - Abrasion
(04) Skin - Contusion
(06) Skin - Laceration
(08) Skin - Avulsion
(10) Amputation
(20) Burn
(30) Crush
(40) Degloving
(50) Injury - NFS
(90) Trauma, other than mechanical

Head - LOC
(02) Length of LOC
(04, 06, 08) Level of Consciousness
(10) Concussion

Spine
(02) Cervical
(04) Thoracic
(06) Lumbar

Vessels, Nerves, Organs. Bones, Joints are assigned consecutive two digit numbers beginning with 02

Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

Abbreviated Injury Scale

(1) Minor injury
(2) Moderate injury
(3) Serious injury
(4) Severe injury
(5) Critical injury
(6) Maximum (untreatable)
(7) Injured, unknown severity

Aspect

(1) Right
(2) Left
(3) Bilateral
(4) Central
(5) Anterior
(6) Posterior
(7) Superior
(8) Inferior
(9) Unknown
(0) Whole region

Page 1 of 1 Pages

Local Codes [redacted]

POLICE ACCIDENT REPORT

MV-[redacted]

BEST AVAILABLE

POLICE AGENCY COPY 1

Accident Date	Day of Week	Time	No. of Vehicles	No. Injured	No. Killed	Non-Highway	Not Investigated at Scene	Left Scene	Police Photos
[redacted] 94 Mo. / Day / Year	WE	1:45 ☐AM ☒PM	2	1	0	☐	☐	☐	☐Yes ☒No

VEHICLE 1

Name — exactly as printed on license: [redacted]

Number and Street: [redacted]

City: [redacted] State: [redacted] Zip Code: [redacted]

Date of Birth	Sex	Unlicensed	No. of Occup.	Public Property Damaged	State of License
[redacted] Mo. / Day / Year	[redacted]	☐	1	☐	[redacted]

Name — exactly as printed on registration: SAME

Date of Birth: Mo. / Day / Year

Number and Street:

Hazardous Material Code:

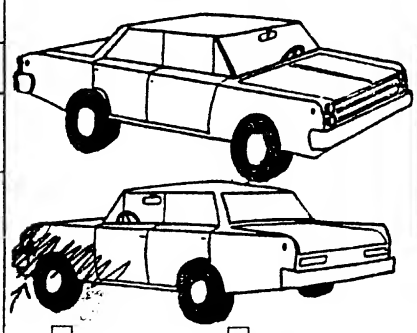
City: State: Zip Code:

Plate Number	State of Reg.	Yr. & Vehicle Make	Vehicle Type	Ins. Code
[redacted]	[redacted]	91 DODGE	4dsd	[redacted]

DMV USE

Check if involved vehicle:
- ☐ is a commercial motor vehicle;
- ☐ is more than 95 inches wide;
- ☐ is more than 34 feet long;
- ☐ was operated with an overweight permit;
- ☐ was operated with an overdimension permit.

VEHICLE 1 DAMAGE



☐ No Damage ☐ Undercarriage

Vehicle Towed By OTTS COLLISION To OTTS COLLISION

VEHICLE 2

☒VEHICLE 2 ☐BICYCLIST ☐PEDESTRIAN

Name — exactly as printed on license: [redacted]

Number and Street: [redacted]

City: [redacted] State: [redacted] Zip Code: [redacted]

Date of Birth	Sex	Unlicensed	No. of Occup.	Public Property Damaged	State of License
[redacted] Mo. / Day / Year	[redacted]	☐	2	☐	[redacted]

Name — exactly as printed on registration: [redacted]

Date of Birth: [redacted] Mo. / Day /

Number and Street: [redacted]

Hazardous Material Code:

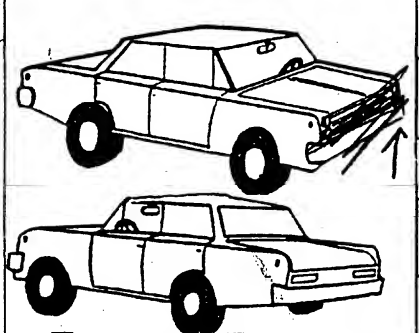
City: [redacted] State: Zip Code:

Plate Number	State of Reg.	Yr. & Vehicle Make	Vehicle Type	Ins. Code
[redacted]	[redacted]	85 FORD	4dsd	[redacted]

DMV USE

Check if involved vehicle:
- ☐ is a commercial motor vehicle;
- ☐ is more than 95 inches wide;
- ☐ is more than 34 feet long;
- ☐ was operated with an overweight permit;
- ☐ was operated with an overdimension permit.

VEHICLE 2 DAMAGE



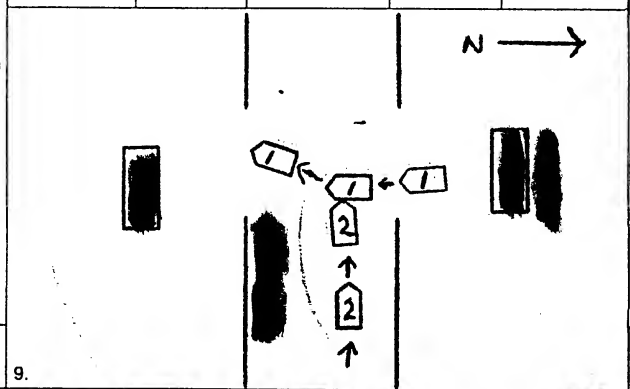
☐ No Damage ☐ Undercarriage

Vehicle Towed By OTTS COLLISION To OTTS COLLISION

ACCIDENT DIAGRAM

Rear End 1. | Left Turn 3. | Right Angle 4. | Right Turn 5. | Head On 7.

Overtaking 2. | Left Turn 0. | Right Angle 4. | Right Turn 6. | Sideswipe 8.



9.

Reference Marker	DMV USE ONLY
20A / 4602 / 1177	

County: [redacted] ☐City ☐Town [redacted] ☒Village

Route No. and Street Name: [redacted]

on [redacted] 100 ☐Miles ☐N ☐E ☒Feet ☐S ☒W of ☐At Intersection with [redacted]

Nearest Intersecting Route/Street

Ticket/Arrest ☐Other ☒Opr 1 ☐Pedestrian ☒Opr 2 ☐Bicyclist

Ticket/Arrest Number(s): [redacted]

Violation Section(s): [redacted]

Accident Description/Officer's Notes

DRIVER VEH WAS ENTERING ROADWAY, EXITING FROM [redacted]
DRIVER STATED SHE SAW VEH 2, BUT THOUGHT IT WAS FURTHUR BACK THAN IT WAS AND WHEN SHE ENTERED [redacted] VEH 2 STRUCK VEH 1
DRIVER VEH 2 STATED HE WAS WEST BOUND AND VEH 1 PULLED OUT IN FRONT OF HIM AND HE WAS UNABLE TO AVOID VEH 1.

	8	9	10	11	12	13	14	15	16	17 BY	TO 18	Names - If Deceased Give Date of Death
A	1	1	4	1	29	F	8	9	—	9997	6001	[redacted]
B	2	1	1	1	21	M	1	2	—	—	—	
C	2	3	1	1	23	M	1	2	—	—	—	
D												
E												
F												

Officer's Rank and Name: [redacted] Badge No. [redacted] Department [redacted] Precinct/Post Troop/Zone Station/Beat/Sector Reviewing Officer [redacted] Date/Time Reviewed [redacted] 94 7:30

BEST AVAILABLE

PEDESTRIAN/BICYCLIST LOCATION
1. Pedestrian/Bicyclist at Intersection
2. Pedestrian/Bicyclist Not at Intersection

PEDESTRIAN/BICYCLIST ACTION
1. Crossing, With Signal
2. Crossing, Against Signal
3. Crossing, No Signal, Marked Crosswalk
4. Crossing, No Signal or Crosswalk
5. Riding/Walking Along Highway With Traffic
6. Riding/Walking Along Highway Against Traffic
7. Emerging from in Front of/Behind Parked Vehicle
8. Going To/From Stopped School Bus
9. Getting On/Off Vehicle Other Than School Bus
10. Pushing/Working On Car
11. Working in Roadway
12. Playing in Roadway *
13. Other Actions in Roadway *
14. Not in Roadway (Indicate) *

TRAFFIC CONTROL
1. None
2. Traffic Signal
3. Stop Sign
4. Flashing Light
5. Yield Sign
6. Officer/Guard
7. No Passing Zone
8. RR Crossing Sign
9. RR Crossing Flashing Lt.
10. RR Crossing Gates
11. Stopped School Bus-Red Lights Flashing
12. Construction Work Area
13. Maintenance Work Area
14. Utility Work Area
20. Other *

LIGHT CONDITIONS
1. Daylight
2. Dawn
3. Dusk
4. Dark-Road Lighted
5. Dark-Road Unlighted

ROADWAY CHARACTER
1. Straight and Level
2. Straight and Grade
3. Straight at Hillcrest
4. Curve and Level
5. Curve and Grade
6. Curve at Hillcrest

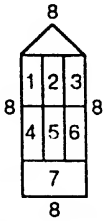
ROADWAY SURFACE CONDITION
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush
0. Other *

WEATHER
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
0. Other *

WHICH VEHICLE OCCUPIED
1. Vehicle No. 1
2. Vehicle No. 2
B. Bicyclist
P. Pedestrian
O. Other *

POSITION IN/ON VEHICLE
1. Driver
2-7. Passengers
8. Riding/Hanging on Outside

SAFETY EQUIPMENT USED
1. None
2. Lap Belt
3. Harness
4. Lap Belt/Harness
5. Child Restraint Only
6. Helmet
7. Air Bag Only
8. Air Bag/Lap Belt
9. Air Bag/Harness
A. Air Bag/Lap Belt/Harness
B. Air Bag/Child Restraint
0. Other *



EJECTION FROM VEHICLE
1. Not Ejected
2. Partially Ejected
3. Ejected

AGE | SEX M / F

APPARENT CONTRIBUTING FACTORS

HUMAN
2. Alcohol Involvement
3. Backing Unsafely *
4. Driver Inattention (Indicate) *
5. Driver Inexperience (Indicate) *
6. Drugs (Illegal)
7. Failure to Yield Right-of-Way
8. Fell Asleep
9. Following Too Closely
10. Illness
11. Lost Consciousness
12. Passenger Distraction
13. Passing or Lane Usage Improper
14. Pedestrian's/Bicyclist's Error/Confusion
15. Physical Disability
16. Prescription Medication
17. Traffic Control Disregarded
18. Turning Improperly
19. Unsafe Speed
20. Unsafe Lane Changing
40. Other Human *

VEHICULAR
41. Accelerator Defective
42. Brakes Defective
43. Headlights Defective
44. Other Lighting Defects
45. Oversized Vehicle
46. Steering Failure
47. Tire Failure/Inadequate
48. Tow Hitch Defective
49. Windshield Inadequate
60. Other Vehicular *

ENVIRONMENTAL
61. Animal's Action
62. Glare
63. Lane Marking Improper/Inadequate
64. Obstruction/Debris
65. Pavement Defective
66. Pavement Slippery
67. Shoulders Defective/Improper
68. Traffic Control Device Improper/Non-Working
69. View Obstructed/Limited
80. Other Environmental *

[redacted] State
Department of Motor Vehicles
POLICE ACCIDENT REPORT
[redacted]

* EXPLAIN IN ACCIDENT DESCRIPTION

If a question DOES NOT APPLY, enter a dash (—).

If an answer is UNKNOWN, enter an "X"

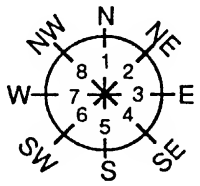
LOCATION OF MOST SEVERE PHYSICAL COMPLAINT
1. Head
2. Face
3. Eye
4. Neck
5. Chest
6. Back
7. Shoulder-Upper Arm
8. Elbow-Lower Arm-Hand
9. Abdomen - Pelvis
10. Hip-Upper Leg
11. Knee-Lower Leg-Foot
12. Entire Body

TYPE OF PHYSICAL COMPLAINT
1. Amputation
2. Concussion
3. Internal
4. Minor Bleeding
5. Severe Bleeding
6. Minor Burn
7. Moderate Burn
8. Severe Burn
9. Fracture - Dislocation
10. Contusion - Bruise
11. Abrasion
12. Complaint of Pain
13. None Visible

VICTIM'S PHYSICAL AND EMOTIONAL STATUS
1. Apparent Death
2. Unconscious
3. Semiconscious
4. Incoherent
5. Shock
6. Conscious

INJURED TAKEN 17 BY | TO 18

DIRECTION OF TRAVEL



PRE-ACCIDENT VEHICLE ACTION
1. Going Straight Ahead
2. Making Right Turn
16. Making Right Turn on Red
3. Making Left Turn
17. Making Left Turn on Red
4. Making U Turn
5. Starting from Parking
6. Starting in Traffic
7. Slowing or Stopping
8. Stopped in Traffic
9. Entering Parked Position
10. Parked
11. Avoiding Object in Roadway
12. Changing Lanes
13. Overtaking
14. Merging
15. Backing
20. Other *

LOCATION OF FIRST EVENT
1. On Roadway
2. Off Roadway

TYPE OF ACCIDENT

COLLISION WITH
1. Other Motor Vehicle
2. Pedestrian
3. Bicyclist
4. Animal
5. Railroad Train *
10. Other Object (Not Fixed) *

COLLISION WITH FIXED OBJECT
11. Light Support/Utility Pole
12. Guide Rail
13. Crash Cushion
14. Sign Post
15. Tree
16. Building/Wall
17. Curbing
18. Fence
19. Bridge Structure
20. Culvert/Head Wall
21. Median/Barrier
22. Snow Embankment
23. Earth Embankment/Rock Cut/Ditch
24. Fire Hydrant *
30. Other Fixed Object *

NON-COLLISION
31. Overturned
32. Fire/Explosion
33. Submersion
34. Ran Off Roadway Only
40. Other *

Vehicle 1 19 ont'd.)
Vehicle 1 20
Vehicle 2 21
Vehicle 2 22
Vehicle 1 23
Vehicle 2 24
Vehicle 1 25
Vehicle 2 26
27
First Event 28
SECOND EVENT
Vehicle 1 29
Vehicle 2 30

COVER SHEET
J

8 9 10 11 12 13 14 15 16

[redacted] Hospital [redacted] COUNTY HOSPITALS [redacted] Hospital [redacted] HOSPITALS [redacted] HOSPITALS [redacted] Hospital [redacted] HOSPITALS [redacted] Hospital [redacted] HOSPITALS [redacted] Hospital [redacted] COUNTY HOSPITALS [redacted] Hospital [redacted] Hospital [redacted] COUNTY HOSPITALS [redacted] Community Hospital [redacted] COUNTY HOSPITALS [redacted] Hospital [redacted] OUT-OF-STATE [redacted]

[redacted]-1994 06:49 [redacted] BEST AVAILABLE [redacted]

DATE OF CALL [redacted] AGENCY CODE [redacted]

Name [redacted]

Address [redacted]

Call Location [redacted]

CHECK ONE: ☐ Residence ☐ Health Facility ☐ Farm ☐ Indus. Facility ☐ Other Work Loc. ☐ Roadway ☐ Recreational ☐ Other

Dispatch Information MVA [redacted]

MILEAGE: END / BEGIN / TOTAL

CALL REC'D 1350

ENROUTE 1354

ARRIVED AT SCENE 55

FROM SCENE 1406

AT DESTIN 1408

IN SERVICE

IN QUARTERS

AGE [redacted] SEX M [redacted]

Physician [redacted]

CALL TYPE AS REC'D: ☒ Emergency ☐ Non-Emergency ☐ Stand-by

COMPLETE FOR TRANSFERS ONLY
Transferred from
☐ No Previous PCR
☐ Unknown if Previous PCR
Previous PCR Number

CARE IN PROGRESS ON ARRIVAL: ☐ None ☐ Citizen ☐ PD/FD/Other First Responder ☐ Other EMS

MECHANISM OF INJURY
☒ MVA (✓ seat belt used →) ☐ Fall of ___ feet ☐ GSW ☐ Machinery ☐ Extrication required ___ minutes
☒ Struck by vehicle ☐ Unarmed assault ☐ Knife ☐

Seat belt used? ☐ Yes ☐ No ☐ Unknown — Seat Belt Use Reported By ☐ Crew ☐ Police ☐

CHIEF COMPLAINT: PAIN IN LOWER LEFT ARM

SUBJECTIVE ASSESSMENT: LEFT ARM PAIN [illegible]

PRESENTING PROBLEM (If more than one checked, circle primary)

☐ Airway Obstruction ☐ Respiratory Arrest ☐ Respiratory Distress ☐ Cardiac Related (Potential) ☐ Cardiac Arrest
☐ Allergic Reaction ☐ Syncope ☐ Stroke/CVA ☐ General Illness/Malaise ☐ Gastro-Intestinal Distress ☐ Diabetic Related (Potential) ☐ Pain 1355
☐ Unconscious/Unresp. ☐ Seizure ☐ Behavioral Disorder ☐ Substance Abuse (Potential) ☐ Poisoning (Accidental)
☐ Shock ☐ Head Injury ☐ Spinal Injury ☒ Fracture/Dislocation ☐ Amputation ☐ Other
☐ Major Trauma ☐ Trauma-Blunt ☐ Trauma-Penetrating ☐ Soft Tissue Injury ☐ Bleeding/Hemorrhage
☐ OB/GYN ☐ Burns Environmental ☐ Heat ☐ Cold ☐ Hazardous ☐ Obvious Death

PAST MEDICAL HISTORY
☐ None ☐ Allergy to [illegible] ☐ Hypertension ☐ Stroke ☐ Seizures ☐ Diabetes ☐ COPD ☐ Cardiac ☐ Other (List) ☐ Asthma

Current Medications (List): NONE

VITAL SIGNS

TIME	RESP	PULSE	B.P.	LEVEL OF CONSCIOUSNESS	GCS	PUPILS	SKIN
[illegible]	Rate: ☐ Regular ☐ Shallow ☐ Labored	Rate: ☐ Regular ☐ Irregular		☒ Alert ☐ Voice ☐ Pain ☐ Unresp.		☒ Normal ☐ Dilated ☐ Constricted ☐ Sluggish ☐ No-Reaction	☒ Unremarkable ☐ Cool ☐ Warm ☐ Moist ☐ Dry ☐ Pale ☐ Cyanotic ☐ Flushed ☐ Jaundiced
	Rate: ☐ Regular ☐ Shallow ☐ Labored	Rate: ☐ Regular ☐ Irregular		☐ Alert ☐ Voice ☐ Pain ☐ Unresp.		☐ Normal ☐ Dilated ☐ Constricted ☐ Sluggish ☐ No-Reaction	☐ Unremarkable ☐ Cool ☐ Warm ☐ Moist ☐ Dry ☐ Pale ☐ Cyanotic ☐ Flushed ☐ Jaundiced
	Rate: ☐ Regular ☐ Shallow ☐ Labored	Rate: ☐ Regular ☐ Irregular		☐ Alert ☐ Voice ☐ Pain ☐ Unresp.		☐ Normal ☐ Dilated ☐ Constricted ☐ Sluggish ☐ No-Reaction	☐ Unremarkable ☐ Cool ☐ Warm ☐ Moist ☐ Dry ☐ Pale ☐ Cyanotic ☐ Flushed ☐ Jaundiced

OBJECTIVE PHYSICAL ASSESSMENT: LEFT ARM (SPLINTED) / NO ARM / NECK INJ PAIN

COMMENTS: PATIENT SPLINTED / PULSE TAKEN

TREATMENT GIVEN
☒ Moved to ambulance on stretcher/backboard
☐ Moved to ambulance on stair chair
☐ Walked to ambulance
☐ Airway Cleared
☐ Oral/Nasal Airway
☐ Esophageal Obturator Airway/Esophageal Gastric Tube Airway (EOA/EGTA)
☐ EndoTracheal Tube (E/N)
☐ Oxygen Administered @ ___ L.P.M., Method
☐ Suction Used
☐ Artificial Ventilation Method
☐ C.P.R. in progress on arrival by: ☐ Citizen ☐ PD/FD/Other First Responder ☐ Other
☐ C.P.R. Started @ Time ▶ ___ Time from Arrest Until C.P.R. ▶ ___ Minutes
☐ EKG Monitored (Attach Tracing) [Rhythm(s)]
☐ Defibrillation/Cardioversion No. Times ___ ☐ Manual ☐ Semi-automatic
☐ Medication Administered (Use Continuation Form)
☐ IV Established Fluid ___ Cath. Gauge
☐ MAST Inflated @ Time
☐ Bleeding/Hemorrhage Controlled (Method Used)
☐ Spinal Immobilization Neck and Back
☐ Limb Immobilized by ☐ Fixation ☐ Traction
☐ (Heat) or (Cold) Applied
☐ Vomiting Induced @ Time ___ Method
☐ Restraints Applied, Type
☐ Baby Delivered @ time ___ In County
☐ Alive ☐ Stillborn ☐ Male ☐ Female
☐ Transported in Trendelenburg position
☐ Transported in left lateral recumbent position
☐ Transported with head elevated
☐ Other

DISPOSITION (See list) [redacted] DISP. CODE [illegible] CONTINUATION FORM USED

IN CHARGE: EMT [redacted] ☒ EMT ☐ AEMT # [redacted]

DRIVER'S NAME [redacted] ☐ CFR ☐ EMT ☐ AEMT # FIREMAN

NAME [redacted] ☐ CFR ☐ EMT ☒ AEMT # [redacted]

NAME [redacted] ☐ CFR ☐ EMT ☐ AEMT # FIREMAN

HOSPITAL PATIENT RECORD COPY

[redacted] COMMUNITY HOSPITAL
and NURSING FACILITY
[redacted]

FACSIMILE COVER SHEET

ATTENTION: [redacted]

COMPANY: CALSPAN

FAX NO: [redacted]

TIME/DATE: 4PM [redacted] 94

FROM: [redacted]

FAX NO: [redacted]

NUMBER OF PAGES (Including cover sheet): 9

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[redacted] HOSPITAL

DISCHARGE SUMMARY

Patient Name:	[redacted]	***Medical Record No.:***	[redacted]
Admission Date:	[redacted] 1994	***Medical Service:***	
Discharge Date:	[redacted], 1994		

HISTORY: *This is a 29-year-old female, who was involved in motor vehicle accident on [redacted] 1994. She was the driver of a car, wearing a seatbelt, and as she was pulling out of a gas station she was involved in a side collision. She sustained multiple injuries. There is no history of loss of consciousness. The multiple injuries consist of: (1) Facial injury, rule out fracture of zygomatic arch. (2) Injury of the sternum, rule out fracture of the sternum, first and second rib on the right side. (3) Injury of the left iliac region and left gluteus region, soft tissue contusion. (4) Injury of the left forearm, displaced comminuted fracture, shaft of the radius at the junction of the proximal one third with the distal two thirds of the shaft, with butterfly fragment and multiple small comminuted fragments. There is a posterolateral angulation and malrotation of the fracture site and the fracture is associated with soft tissue injury and traumatic ulnar neuropathy. The patient on admission was complaining of pain and paresthesia in the peripheral distribution of the ulnar nerve.*

HOSPITAL COURSE: *The patient has been seen in the emergency room following her accident and the patient's vital signs have been resuscitated and her condition is stabilized. Skeletal x-ray survey has been performed, as well as comprehensive general and orthopedic examination to rule out any associated injury. Attempted closed manipulation reduction of the fracture site failed to achieve any satisfactory position of the fracture fragment with persistence of the deformity due to severe displacement of the fracture site. Consequently the patient has been operated upon on [redacted] 1994. Under general endotracheal anesthesia, the following operative procedure was performed on the left forearm: Open reduction, internal fixation of displaced comminuted transverse fracture of the shaft, right radius at the junction of the proximal one third with the distal two thirds of the shaft of the radius using osteosynthesis technique, 3.5 mm DC plate of 6 cortices fixation and protection of the right arm in long posterior splint.*

The patient had an uneventful post operative recovery. Edema and swelling, as well as the symptoms related to traumatic ulnar neuropathy are resolving and disappearing. The circulatory status remains intact and adequate, as well as the neurological status. The patient has full range of movement at the wrist, MIP, PIP and DIP joint and the circulatory status has improved with normal capillary refill. On the [redacted] 1994 the wound was inspected and found to be healing very satisfactorily, with no signs of infection or hematoma formation and a sterile new dressing was applied. The continued immobilization of the right forearm in a long posterior splint, with the elbow at 90 degrees of flexion and the arm in a midpronation supination position. The symptoms related to the sternum and the right side of the chest are gradually resolving and there is normal vesicular breathing and both lungs are clear to physical exam, tenderness has much subsided in the area of the rib on the right side in the midclavicular area. Apparently the patient has also recovered from the injury to the zygomatic arch and there is no involvement of the temporomandibular joint.

...CONTINUED...

ES:cfk Dict: [redacted]94 Trans: [redacted]94

...CONTINUED...

Patient Name:	[redacted]	*Medical Record No.:*	[redacted]
Admission Date:	[redacted], 1994	*Medical Service:*	[redacted]
Discharge Date:	[redacted] 1994	*Page No.:*	[redacted]

The patient was discharged home on [redacted] 1994 with instructions to continue on po antibiotic; one capsule of Keflex 500 mg q 6 h for seven days. The patient will keep the left hand elevated all the time at home and encouraged to actively exercise the wrist and left hand. Her condition will be reviewed and followed up in the office as arranged.

SIGNED: _____

ES:cfk
Dict: [redacted]94
Trans: [redacted]94
cc: [redacted]

BEST AVAILABLE

[redacted]

PATIENT NAME: [redacted] 94 FAM DR [redacted] MEDICAL RECORDS # [redacted]

PHYSICIAN	CALLED	ARRIVED	CONSULTING PHYSICIAN	CALLED	ARRIVED	TREATMENT PRIOR TO ARRIVAL
[redacted]	there		[redacted]	1530	1710	Splint to (L) arm, Cervical Collar

ALLERGIES NKA

LAST TETANUS TOXOID [redacted] 84

PMH Childbirth, appendectomy

ROUTINE MEDS. None

NOTIFICATION: FAMILY/SIGNIFICANT OTHER ☑ CALLED TIME 1421 - husband ☐ WITH ARRIVED ______ POLICE TIME PTA CORONER TIME ______ OTHER TIME ______

NURSING ASSESSMENT: TIME: 1410 CONDITION: Urgent · WDWN · A/OX3 · W♀ · Driver of car involved in MVA · states she was pulling out of [redacted] onto [redacted] + was struck on (L) side of car · was wearing seatbelt + airbag inflated. c/o pain (L) arm from elbow down into wrist. Ø deformity or swelling noted. Strong radial pulse felt. Capillary refill ≤ in 3 sec. States she also has pain Rt cheek. Ø swelling noted. Ø LOC. [redacted] Denies any neck pain.

T. 96 P. 78 R. 18 BPR. 130/80 BPL. WT. NURSE'S SIGNATURE X [redacted]

PHYSICIAN ASSESSMENT TIME 820 [illegible] Hit fr [illegible] side (L) arm hit door. No other c/o. Has deformity (L) forearm, neurovasc intact. Hurts to move wrist. ribs [illegible] [illegible], abd soft nontender [illegible] [illegible] Tons [illegible] PERRL. [illegible] [illegible]

[redacted] will see 330

TIME	INTERVENTIONS	TIME	INTERVENTIONS
1447 / 1500	X-Ray (L) ~~wrist~~ forearm CXR	1550	[redacted] called + stated
1540	CBC, SMA6, PT/PTT	1600	she would be here in 6 hours
1610	U/A	1630	NVS intact LH
1550	EKG by LH	1700	5th digit feels numb - hand elevated LH
1730 / 1815	X-ray sternum, (R) chest, (R) hip, pelvis -	1730	Numbness ↓. LH
1630	Consent signed + attached LH	1815	posterior splint applied by Dr. Goliman. LH
		1830	Darvocet N100 ↑ tab po LH

DIAGNOSIS fx (L) midshaft radius.

PHYSICIAN SIGNATURE [redacted]

CONDITION ON DISCHARGE	DEPARTURE MODE	TRANSFERRED TO		HOME		TIME	INSTRUCTION REVIEWED AND UNDERSTOOD
[redacted]	stretcher		[redacted]		[redacted] 94	1850	☐

☐ OFFICIAL X-RAY READING NEXT WORKING DAY ☐ CALL DR. ______ PHONE # ______ TO BE SEEN IN ______ DAYS

☐ INSTRUCTION SHEET

BEST AVAILABLE

[redacted]

PATIENT NAME: [redacted] -94 FAM DR- [redacted] MEDICAL RECORDS [redacted]

PHYSICIAN	CALLED	ARRIVED	[redacted]	CALLED	ARRIVED	TREATMENT PRIOR TO ARRIVAL
[redacted]	there		[redacted]	1530	1710	Splint to Ⓛ arm, Cervical collar

ALLERGIES NKA

LAST [redacted] 84

PMH Childbirth, appendectomy

ROUTINE MEDS. None

NOTIFICATION: FAMILY/SIGNIFICANT OTHER ☐ CALLED TIME 1421-husband ☐ WITH ARRIVED TIME POLICE DTA TIME CORONER TIME OTHER TIME

NURSING ASSESSMENT: TIME: 1410 CONDITION: Urgent - w/D w/N - A/OX3 - W ♀ - Driver of car involved in MVA - states she was pulling out of [redacted] onto [redacted] + was struck on Ⓛ side of car - was wearing seatbelt + airbag inflated. c/o pain Ⓛ arm from elbow down into wrist. Ø deformity or swelling noted. Strong radial pulse felt. Capillary refill in 3 sec. States she also has pain Rt cheek. Ø swelling noted. Ø LOC. [redacted] Denies any neck pain.

T. 96 P. 78 R. 18 BPR. 130/80 BPL. WT. NURSE'S SIGNATURE X [redacted]

PHYSICIAN ASSESSMENT TIME 1/20 [illegible] Hit from side Ⓛ arm hit door - No other c/o.
Has deformity Ⓛ forearm, [illegible] intact. Hurts to move wrist.
[illegible] [illegible] - abd soft nontender
pelvis [illegible] [illegible] PEARL.
[illegible]

[redacted] will see 330

TIME	INTERVENTIONS	TIME	INTERVENTIONS
1447 / 1500	X Ray Ⓛ wrist forearm / CXR	1530	- T [redacted] called - stated
		1600	she would be here in 1/2 hour
1540	CBC, SMA6, PT/PTT	1630	NVS intact LH
1610	U/A	1700	5th digit feels numb - hand elevated LH
1550	EKG by LH	1730	Numbness ↓. LH
1730 / 1815	Xray sternum, Ⓡ chest, Ⓛ hip, pelvis -	1805	posterior splint applied by Dr. Goliman. LH
1630	Consent signed + attached LH	1830	Darvocet N100 T tab po LH

DIAGNOSIS fx Ⓛ midshaft radius

PHYSICIAN SIGNATURE [redacted]

CONDITION [redacted] [redacted] TRANSFERRED TO ADM [redacted] HOME ☐ TIME 1850 ☐ INSTRUCTION REVIEWED AND UNDERSTOOD

☐ OFFICIAL X-RAY READING NEXT WORKING DAY ☐ CALL DR. PHONE #. TO BE SEEN IN DAYS

☐ INSTRUCTION SHEET

XRAY DEPARTMENT cc:

[redacted]

IN 2

Physician: [redacted] Date: [redacted]/1994

Patient: [redacted] Case No: [redacted]

Chest

AP, upright chest reveals the diaphragms clear and in good position. The heart shows normal size and configuration. The lung fields are clear.

Left Forearm

Left forearm in multiple projections reveals transverse fracture of the mid shaft of the radius with the distal fragments displaced laterally the width of the shaft. There is slight foreshortening. The ulna appears to be intact.

Sternum

Studies of the sternum reveal no fracture. The segments are in good position.

Orbits

Studies of the orbits reveal the rims to be symmetrical and intact. No fractures could be seen and the floors appear to be symmetrical and intact.

Pelvis and Left Hip

AP pelvis and left hip reveal normal trabecular pattern. The hip joints are symmetrical and well maintained. The proximal femur are intact.

Radiologist: JOSEPH TANNENHAUS

Transcriptionist: [redacted] Transcribed: [redacted]/1994

XRAY DEPARTMENT CC:

[redacted]

IN 2

Physician: [redacted]

Date: [redacted]/1994

Patient: [redacted]

Case No: [redacted]

Chest

AP, upright chest reveals the diaphragms clear and in good position. The heart shows normal size and configuration. The lung fields are clear.

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Pelvis and Left Hip

AP pelvis and left hip reveal normal trabecular pattern. The hip joints are symmetrical and well maintained. The proximal femur are intact.

Radiologist: [redacted]

Transcribed: [redacted]/1994

[redacted]

OPERATIVE REPORT

Patient:	[redacted]	**Surgeon:**	**Dr.** [redacted]
Hospital No.:	[redacted]	**Asst. Surgeon:**	
Room No.:	[redacted]	**Anes. M.D.:**	
Date:	[redacted]1994	**Anesthesia:**	See below.

PREOPERATIVE DIAGNOSIS: Displaced comminuted transverse fracture shaft of left radius with butterfly fragment and other small comminuted fragments.

POSTOPERATIVE DIAGNOSIS: Same.

OPERATION PERFORMED: Open reduction internal fixation of displaced comminuted transverse fracture of shaft right radius at the junction of the proximal one third with the distal two third of the shaft of the radius using osteosynthesis technique 3.5 mm DC plate of 6 cortices fixation, protection of the right forearm in long posterior splint.

STEPS OF PROCEDURE: The patient has received general endotracheal anesthesia and was placed supine on the operating table. The left forearm was prepped and draped in the usual sterile fashion using isolated water resistant drapes. Tourniquet pressure is was elevated to 250 mmHg following exsanguination of the left upper extremity with Esmarch bandage. The fracture site is evaluated using C-Arm image intensifier in both AP and lateral view and is found to be a comminuted displaced fracture, transverse, involving the junction of the proximal one third with the distal two thirds. There is a butterfly fragment displaced medially and other small comminuted bony fragments. There is posteromedial angulation and displacement of the fractures site as well as about 1.5 cm of bony overlap and shortening of the distal radius. Both the superior and the inferior radial ulnar joints seem to be intact and there is no evidence of subluxation or dislocation at these joints. Using the anterior exposure to the shaft of the radius a curvy, linear skin incision is made along the medial border of the brachioradialis muscle, centered over the fracture site. The incision is extended superiorly to the antecubital area to expose the proximal third of the radius and extended inferiorly toward the radial styloid. The skin incision is deepened into subcutaneous tissue, hemostasis is secured and the deep fascia is incised. A plane is developed between the brachioradialis and the flexor carpi radialis to expose the medial border of the radius. The radial artery is running in this interval, identified and protected. The superficial cutaneous branch of the radial nerve is traveling under the brachioradialis in the proximal two thirds of the forearm. It is identified, safe guarded and protected. The shaft of the radius is exposed distally by reflecting the attachment of the pronator tiers and the radial origin of the flexor digitorum sublimis muscle. For more proximal exposure of the proximal third of shaft of radius the origin of the supinator is reflected off the radius subperiosteally in its lower part and is reflected laterally. This carries with it the posterior interosseous nerve and protected the nerve. The fracture site is exposed as it is described above and consists of displaced comminuted transverse fracture with a butterfly fragment displaced medially toward the interosseous space and other small comminuted displaced fragments from both proximal and distal fragments. The fracture hematoma is cleared and the wound is irrigated. The butterfly fragment is reattached to the proximal bony fragments and the medullary canal of the proximal fragment and the geometry of the proximal one third fragment is reconstructed. The butterfly fragment is fixed in its place using nonabsorbable suture due to the fact that this butterfly fragment is small and it will be fragmented with any type of screw fixation. Accurate anatomical reduction of the fracture site is obtained restoring axial alignment and the length of the distal radius by mild traction which brought the bony fragment in contact.

[redacted]

CONTINUED ...

[redacted]

WYOMING COUNTY COMMUNITY HOSPITAL
OPERATIVE REPORT

Patient:	[redacted]	**Surgeon:**	[redacted]
Hospital No.:	[redacted]	**Asst. Surgeon:**	
Room No.:	[redacted]	**Anes. M.D.:**	
Date:	[redacted], 1994	**Anesthesia:**	See below.

PREOPERATIVE DIAGNOSIS: Displaced comminuted transverse fracture shaft of left radius with butterfly fragment and other small comminuted fragments.

POSTOPERATIVE DIAGNOSIS: Same.

OPERATION PERFORMED: Open reduction internal fixation of displaced comminuted transverse fracture of shaft right radius at the junction of the proximal one third with the distal two third of the shaft of the radius using osteosynthesis technique 3.5 mm DC plate of 6 cortices fixation, protection of the right forearm in long posterior splint.

STEPS OF PROCEDURE: The patient has received general endotracheal anesthesia and was placed supine on the operating table. The left forearm was prepped and draped in the usual sterile fashion using isolated water resistant drapes. Tourniquet pressure is was elevated to 250 mmHg following exsanguination of the left upper extremity with Esmarch bandage. The fracture site is evaluated using C-Arm image intensifier in both AP and lateral view and is found to be a comminuted displaced fracture, transverse, involving the junction of the proximal one third with the distal two thirds. There is a butterfly fragment displaced medially and other small comminuted bony fragments. There is posteromedial angulation and displacement of the fractures site as well as about 1.5 cm of bony overlap and shortening of the distal radius. Both the superior and the inferior radial ulnar joints seem to be intact and there is no evidence of subluxation or dislocation at these joints. Using the anterior exposure to the shaft of the radius a curvy, linear skin incision is made along the medial border of the brachioradialis muscle, centered over the fracture site. The incision is extended superiorly to the antecubital area to expose the proximal third of the radius and extended inferiorly toward the radial styloid. The skin incision is deepened into subcutaneous tissue, hemostasis is secured and the deep fascia is incised. A plane is developed between the brachioradialis and the flexor carpi radialis to expose the medial border of the radius. The radial artery is running in this interval, identified and protected. The superficial cutaneous branch of the radial nerve is traveling under the brachioradialis in the proximal two thirds of the forearm. It is identified, safe guarded and protected. The shaft of the radius is exposed distally by reflecting the attachment of the pronator tiers and the radial origin of the flexor digitorum sublimis muscle. For more proximal exposure of the proximal third of shaft of radius the origin of the supinator is reflected off the radius subperiosteally in its lower part and is reflected laterally. This carries with it the posterior interosseous nerve and protected the nerve. The fracture site is exposed as it is described above and consists of displaced comminuted transverse fracture with a butterfly fragment displaced medially toward the interosseous space and other small comminuted displaced fragments from both proximal and distal fragments. The fracture hematoma is cleared and the wound is irrigated. The butterfly fragment is reattached to the proximal bony fragments and the medullary canal of the proximal fragment and the geometry of the proximal one third fragment is reconstructed. The butterfly fragment is fixed in its place using nonabsorbable suture due to the fact that this butterfly fragment is small and it will be fragmented with any type of screw fixation. Accurate anatomical reduction of the fracture site is obtained restoring axial alignment and the length of the distal radius by mild traction which brought the bony fragment in contact.

CONTINUED ...

[redacted]

Patient: [redacted]
Hospital No.: [redacted]

Surgeon: [redacted]
Asst. Surgeon:

OPERATIVE REPORT ... CONTINUED ...Page 2

The distal radial fragment is fully supinated to match the fully supinated proximal fragment and this corrected the angulation as well as the rotational deformity existing at the fracture fragment. The posterolateral bow of the shaft of the radius is restored and is preserved. The small comminuted fragments which maintain their soft tissue attachment are replaced in place and the fragments are matched by the interdigitation. The fracture site is exposed subperiosteally but great care is taken not to widely strip the periosteum. The anatomical reduction of the fracture fragment is verified intraoperatively using C-Arm image intensifier in both AP and lateral view and is found to be satisfactory. A malleable template is placed on the anterior surface of the shaft of the radius centered over the fracture site with six cortices fixation and 3.5 DC plate with six cortices fixation is contoured according to the template in order to perfectly fit the contour of the anterior surface of the shaft of the radius. Six cortices fixation of 3.5 mm DC plate is selected and is applied to the volar aspect of the shaft of the radius with two cortices fixation above the fracture site and three cortices fixation below the fracture site using osteosynthesis technique. The first screw is placed in the plate hole near the fracture site with a neutral drill bit. The second hole in the DC plate is drilled with the eccentric drill bit and as the screws are tightened compression between fracture fragments is obtained. The rest of screws are put in with a neutral drill bit. Anatomical reduction and secured internal fixation is obtained and this is verified with C-Arm image intensifier fluoroscopically intraoperatively. The tourniquet pressure is released, hemostasis is secured and the wound is irrigated with a copious amount of normal saline solution. A fasciotomy of the anterior flexor compartment is performed in order to prevent development of compartment syndrome and hemostasis is obtained in order to prevent hematoma formation. The wound is closed with subcutaneous suture using 3-0 Vicryl suture material and the skin in closed with 5-0 Vicryl suture material in interrupted fashion. A sterile compression dressing is applied and the left forearm is immobilized and protected in a long posterior splint. The patient tolerated the procedure satisfactorily and was returned to the recovery room in stable, good condition. Neurovascular status of the left upper extremity remains intact and adequate as noted preoperatively.

[redacted]

94

SIGNED:_____

ES:psl
Dict: [redacted]94
Trans: [redacted]94
cc: Dr. [redacted]

Patient: [redacted]
Hospital No.: [redacted]

Surgeon: [redacted]
Asst. Surgeon:

OPERATIVE REPORT ... CONTINUED ...Page 2

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[redacted]

SIGNED:_____

ES:psl
Dict: [redacted]/94
Trans: [redacted]/94
cc: [redacted]

XRAY DEPARTMENT cc:

[redacted] HOSPITAL [redacted]

Physician: [redacted] Date: [redacted] 1994

Patient: [redacted] Case No: [redacted]

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AP, upright chest reveals the diaphragms clear and in good position. The heart shows normal size and configuration. The lung fields are clear.

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Pelvis and Left Hip

AP pelvis and left hip reveal normal trabecular pattern. The hip joints are symmetrical and well maintained. The proximal femur are intact.

[redacted]

[redacted] 94

[redacted]

Radiologist: [redacted]

Transcriptionist: [redacted] Transcribed: [redacted] 1994

XRAY DEPARTMENT cc: [redacted]

[redacted] COUNTY COMMUNITY HOSPITAL

[redacted] ??

Physician: [redacted] Date: [redacted]/1994

Patient: [redacted] Case No: [redacted]

Left Forearm

Left forearm in surgery reveals that the fracture of the mid radius is held in excellent alignment and apposition by a plate and screws. The screws are above and below the fracture site.

[redacted]

Radiologist: [redacted]

Transcriptionist: [redacted] Transcribed: [redacted]/1994